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The Appraisal Report

VOL. III, No. 4 JULY, 1935

The University of Chicago

and

The American Institute of Real Estate Appraisers

ANNOUNCE

Two Practical Courses in Real Estate Appraisal

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Purposes:

1. To give a clear understanding of the purposes and functions of appraisals in business.
2. To develop a general knowledge of underlying appraisal principles and valuation theory.
3. To offer a foundation for the practical approach to the appraisal procedure.
4. To give training in gathering and analyzing field data.
5. To give training in the mechanics of the appraisal process.
6. To develop a clear understanding of the form and purpose of appraisal reports.

Instructors:

All of the instructors are M. A. I's. selected from the membership of the Institute on the basis of their record as teachers and their long experience in actual appraisal work. Each instructor has had more than eight years' experience and has appraised all types of real estate ordinarily found in metropolitan areas and in small urban communities. The faculty is headed by George L. Schmutz, M. A. I., of Los Angeles, California—*Dean of the Summer Courses;* Ayers J. du Bois, M. A. I., of Washington, D. C.; and Herman O. Walther, M. A. I., of Chicago, Illinois.

Method of Instruction:

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2. Regularly and specially scheduled round-table discussion periods.
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4. Assigned readings in the most complete real estate library in the country. These will include references to selected appraisal reports in the Institute's collection of more than 1,000 duplicates of appraisal reports prepared by Members of the Institute for actual clients.
5. Specially prepared mimeographed text material covering the course in detail.
6. Personal conferences.

While these courses are intended for experienced real estate men, they are open to any who have an adequate background of education and training. Enrollment is limited to 100 students.

A booklet giving detailed information about the courses may be had by addressing:

The American Institute of Real Estate Appraisers

22 W. Monroe Street—Chicago, Illinois

The JOURNAL *of the*

AMERICAN INSTITUTE OF REAL ESTATE APPRAISERS

of the National Association of Real Estate Boards

K. Lee Hyder, *Editor-in-Chief*
Harry Grant Atkinson, *Managing Editor*

Volume III | July, 1935 | Number 4

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This publication is provided as a medium for the expression of individual opinion concerning appraisal practice and procedure and topics allied thereto. The articles printed herein do not necessarily represent the endorsement of the Institute nor of the majority of the members excepting as such statements may be designated as approved by the Governing Council. The Editors exercise only a general supervision of the material and assume no responsibility for the opinions expressed by the contributors.

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Looking Ahead!

The following articles now in preparation will appear in this Journal in subsequent issues:

The Management Factor

Analysis of the Competitive Factor

Condemnation Appraisal Procedure

Appraisal of Trees and Shrubbery

Assessment of Development Property

The Influence of Special Assessments on Home Values

Neighborhood Factors in Appraising Outlying Business Property

Neighborhood Factors in the Appraising of Homes

Real Estate Board Appraisal Committee Work

Expert Testimony

The Appraisal of Cemeteries

The Appraisal of Warehouses

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New Developments in the Technique of Tax Appraisals

Appraising Real Estate for Mortgage Loans

Population Trends

Appraising Percentage Leases

Work Sheet for Use in Appraising Homes

Alley Influence

The Treatment of Depreciation

Procedure in Appraising Leasehold Interests

Effect of Public Improvements on Value

President's Page

TWO of the major purposes of the American Institute of Real Estate Appraisers are the advancement of the science of appraising and the selection and identification of members. In the last issue I discussed briefly the former, calling attention to the proposed school of Real Estate appraisal to be held this summer at the University of Chicago. Since publication of the last issue, final plans have been made for the courses to be held; one of two weeks covering the general field of real estate appraising, with field work in the vacant and residential property fields; one of four weeks, supplementing the first two weeks' work with more advanced appraisal work, including field work in the income property field. It is requested that you bring these courses to the attention of men in your city who are interested in improving their knowledge of the subject.

The conferences held to develop a syllabus for the course were an education in themselves. The detailed syllabus being developed will be available not only for this course but for other institutions that are interested in sponsoring similar courses. Supplementing these outlines will be suggested readings covering the various phases of the subject. This important work, being carried out under the supervision of the Committee on Education and Research, should do much to advance appraisal thinking.

A second purpose of the Institute is the selection and identification of members. Since the formation three years ago, the membership has grown from approximately 100 to over 400. The process of selection has been somewhat slow, due to the care which has been exercised. Anyone who has attended meetings of the Admissions Committee realizes the thoroughness with which the applications are reviewed. A debt of gratitude is due members who have served upon the committee.

There has been agitation in several states for licensing of real estate appraisers. The Institute is opposed at this time to any such legislation. It is our feeling that further development of appraisal thinking is necessary before proper tests can be devised for granting licenses. An improper license law would be very harmful at this time and would do much to break down the progress which has been made to date.

It should be our aim at present to develop a more representative membership, securing members in all sections of the country. The Membership Committee is working toward this end. They can not accomplish the task alone. The cooperation of all members is requested, especially in those parts of the country where we do not have representative membership at this time.

Joseph B. Hall

President, American Institute
of Real Estate Appraisers

The Materials for Success

Far up in one of Colorado's magnificent canyons, known as that of the Middle Boulder, stands one of Nature's most remarkable monuments. It is a growing, living thing—a majestic silver spruce of such dignity of setting and beauty of form that, though surrounded by giant evergreens that bank the precipitous granite slopes behind, it seems to stand alone. It is called "The Perfect Tree."

We first beheld it as a boy from the single deck of a nervous "buck board" as we toiled up the rocky canyon road. It was but the first of many pilgrimages to this shrine of beauty—sixteen miles of travail in those days from our starting point, but always the thrill was worth the effort.

Last week we saw "The Perfect Tree" again—this time from a modern motor car in a half hour's drive over a broad though still tortuous highway. The approach was easier, the pilgrims had multiplied a hundred-fold, but the Emerald Sentinel had apparently changed not at all.

We gazed in wonder at such perfection. By what combination of conditions was it created and perpetuated? Some of these were evident. A seedling perhaps in unusually fertile soil, a local rivulet just near enough to nurture without destructive hazards, the many surviving members of a sturdy ancestry enclosing and protecting it from the wintry blasts tearing down from the snowy range above—and yet not so close or all embracing as to shut out the life-giving rays of Colorado's sun. With all of these, however, there still was needed the developed strength and power of sixty years of living to reach perfection.

Perhaps there is a lesson here—another page from Nature's textbook. Perfection and success require fertile soil, a natural setting, protection from destructive forces, room for development and sustenance to promote it, and, most important of all, the passage of time to attain full maturity.

The *American Institute of Real Estate Appraisers* is a growing living organization. That it is found on fertile soil is self-evident. Never has the country presented such a set of contradictory economic problems as are now crying for solution. The setting is a natural one—the first in the field and surrounded by related social and industrial activities but with ample room to grow. The sustenance for development through education is now to be provided by the *Courses in Real Estate Appraisal* to be presented at the *University of Chicago* in August. It is contemplated that these are to be perpetuated. There now remains simply the question of *time* and the years to come will provide that requisite.

We are little concerned at present with the level of attainment and success that the Institute may ultimately reach. The circumstances prevailing at the time of its founding were fortunate and its progress to date has been more or less inevitable. That it be maintained as a living, growing organization is the essential thing—the expansion of its membership—the extending of the scope of its influence and educational opportunities. With these assured the future success of the Institute may be contemplated with absolute certainty. Perfection is after all wholly relative but all essential circumstances are present, or available. Let us make the most of them.

The JOURNAL *of the*

AMERICAN INSTITUTE OF REAL ESTATE APPRAISERS

of the National Association of Real Estate Boards

Volume III JULY, 1935 Number 4

The Technique of Preparing for Court Testimony

By JOSEPH LARONGE, M. A. I.

THE business of appraising real property has, through progressive developments over a period of time, become a profession, employing to a certain degree, scientific methods and involving ethical standards. Since one of the duties ofttimes performed by appraisers is that of testifying before some tribunal, and involves a specialized type of service not peculiar to all appraisal work, it is not amiss to consider this function an art in itself, involving a technique with which the testifying appraiser should be familiar.

It should be recalled at the outset, that the average witness in a law suit testifies to facts as he knows them—to something he has seen or heard, or otherwise derived through the medium of his senses. The testimony of an appraiser differs from such evidence, in that it gives an opinion only. Since anyone with slight experience is entitled to an opinion, the courts generally permit considerable latitude in determining whether or not a particular individual is qualified to testify as to value. Very often an individual whose only qualification is the fact that he is the owner of property in the vicinity or of the type of the premises in question, is permitted to give his opinion. Ordinarily therefore, the background, experience, and "expertness" of the witness are not matters which necessarily permit or prevent his testimony, but are matters of degree, which bear upon the weight which will be given to his statements.

Since this type of evidence is technical, uninteresting, and beyond the intellectual reach of most jurymen and many judges, it is well for an appraiser to be prepared to give fully his qualifications and experience, and to enumerate them in detail, as it may be that they will represent the determining factor in the minds of courts and juries as to which opinion of value will be adopted as the correct one. General experience in real property work, appraising, etc., in a particular community is the starting point in this regard.

Education in appraisal theory and in the various mathematical systems used is both desirable and essential. However, the ability and qualification of an appraiser, like the taste of old wine, is seasoned by the passage of time—by knowledge gained in the school of experience in the actual handling of sales, leases, and other transactions as owner, broker, or otherwise, as well as in appraisal work itself.

In addition an appraiser gains an advantage if he is able to point to experience with particular properties in the im-

mediate locality of the premises in respect to which litigation has been brought, and properties of a similar type. Opposing counsel will at times concede at the beginning that the witness is qualified to testify, because such admission precludes disclosure of the degree of the witness's experience. The appraiser might well suggest in advance to his counsel that if it can be accomplished gracefully, he ask the necessary questions to bring out his qualifications nevertheless, because of the effect they may have in impressing the jury.

INVESTIGATION

Without doubt, the greatest asset of the successful testifying appraiser, is complete preparation. In many instances it may require weeks or months to gather together the necessary data to permit testimony on the witness stand extending over but a few moments. Adequate preparation may not be absolutely essential for a friendly direct examination, but is by far the best safeguard against the disasters of a successful cross examination.

In his preliminary work the appraiser should take into consideration every element which would be considered by him were he contemplating purchasing the property in question. He should actually take accurate measurements of the land and the building, compute the content of the building and the square foot floor area, the number and size of its rooms, as well as details such as the quality, type, and condition of the plumbing fixtures, lighting equipment, heating system, floors, woodwork, roofing, downspouts, drains, etc., which often become matters of importance at the trial. Building permits should invariably be investigated, particularly to learn the age of the structure. If the building inspector's records do not yield the information, it is well to check the county auditor's records of assessments, the city atlas, and other sources of such data, since it is not exceptional for the owner to claim a structure to have been erected in the more recent past than is the fact in order to procure a larger verdict than is his due.

Because, in the last analysis, the true value of real property depends to a great degree upon the net income it will bring its owner, the appraiser should be thorough in obtaining, if possible, figures giving its income at the time of the appraisal and for as many years previous as is possible, so that he may study the trend of the yield. Of equal importance is the certainty or uncertainty of future income, in respect to which the appraiser should consider the rentability of the premises, the existence or non-existence of leases and their length, the character and responsibility of the lessees, as well as the factors of obsolescence and depreciation in their relation to future income, and the feasibility or futility of correcting existing states of disrepair and obsolescence, if any.

In the same regard he should gather information to determine whether the neighborhood trend is on the incline or the decline, what the condition of nearby structures happens to be, whether there has been recent building in the vicinity, and if so, the type and modernity of the new construction. In arriving at the value, notation also should be made of the corner influences, if any, and other location factors, the grades and contours of the land, public improvements, and the property's accessibility, including transportation facilities, etc. Its future may depend upon the purchasing power of the hinterland population, trends and shifts of population, the probable operating and maintenance costs, including the existence of possible high improvement assessments, all of which must necessarily be deducted from the expected income, to determine the net return.

It is also important to note the zoning or deed restrictions, and the proximity of expiration of deed restrictions by limitation, which invariably, in the absence of strict zoning requirements, results in a change in the character of the neighborhood.

There are other numerous services an appraiser must and should perform to prepare himself for court work which would require several pages in themselves to enumerate: For example, nearby pedestrian and automobile traffic counts, parking facilities, information with respect to sales and leases of similar properties in the immediate vincinity, which might be used for the purpose of comparison; and, for the sake of guidance only (bearing in mind the factors which sometimes render such information untrue milestones), the tax value, reproduction cost of the building, and amount of mortgage encumbrance against the property. Since the nature of land is such that its worth is derived largely from its utility, consideration should be given to the various uses to which it might economically be put, and a value finally assigned to the property on the basis of its highest and best use. Generally speaking, every element which might bear upon the value of the property in any respect, it is the function of the appraiser to examine into with care.

WHY DETAIL IS IMPORTANT

These items enumerated for investigation may seem far too detailed and all-inclusive to the layman. However, in addition to their helpfulness in enabling the expert to arrive at an intelligent opinion of value, it is necessary that he examine into every such avenue of information inasmuch as opposing counsel will certainly question him concerning matters seemingly unimportant in themselves, in an attempt to discredit his testimony by bringing out lack of complete knowledge concerning the property on his part.

One example of the benefit of preparedness is a case in which the author was asked on cross examination as to the direction in which the first floor joists ran—a detail ordinarily of little importance. Upon giving his answer, counsel asked him how he knew this to be the case. He answered that he had noted the fact in examining the basement ceiling, whereupon counsel bellowed forth confidently and belligerently the query. "Do you not know that the basement ceiling is plastered over, making it impossible to see the joists?" The witness answered quietly, "It is true that the ceiling of the basement proper is plastered over, but the ceiling over the fruit cellar, coal bin, and lavatory is not, and it is by observing the ceiling in these rooms that I noted the direction of the joists." Opposing counsel stammered, blushed, dropped the subject quickly and never again returned to it. Such is the consequence of preparedness.

"Value" evidence represents a particularly fruitful field for cross examination because of the great divergence which generally exists between the opinions of the experts in any one case, and because of the myriads of factors which may effect the worth of real property. In order to test the witness's qualifications and "break down" his testimony, if possible, the hostile attorney sometimes questions him in minute detail as to his knowledge of material prices, the prevailing wages for different types of labor, and the methods used in computing painting, decorating, and other costs. The appraiser who testifies must keep himself well posted and up-to-date on all such data, or he may at one time or another, find himself disconcerted by his inability to answer a pertinent question.

As has been inferred, it is the ever-pres-

ent delight of the "other lawyer" to eliminate the good accomplished by the direct testimony of an appraiser, through the channel of cross examination. It should not be forgotten that in litigation involving a jury of ordinary people as the "triers of the facts," it is not necessary for him to discredit every statement made by the appraiser before accomplishing this end. Success in indicating a witness's inexpertness by proving lack of adequate preparation by bringing out clearly the use of an incorrect method of appraisal, in showing that he failed to consider one important element, or that his information as to some detail was incorrect, may cause the jury to disregard his entire testimony.

The marked difference between the ordinary appraisal and one in respect to which testimony is to be given, is that in the latter cross examination is to follow—a cross examination involving a wide range of questions, without the opportunity for verification through study and research before answering. Hence again, the advisability of adequate preparation cannot be stressed too strongly.

THE OTHER SIDE OF THE CASE

In order to anticipate questions which may be asked, the author always prepares or has prepared by an employee "the other side of the case." This procedure is just as important as the investigation of facts necessary to arrive at and substantiate the appraiser's opinion of value. It is well actually to have written up in detail, every assertion which might logically be made by opponents, and then to meditate over each, and prepare carefully the answer most effective to combat it.

INFORMATION FURNISHED BY THE CLIENT

It is of importance also, never to rely entirely upon information given by one's client. For example, the conscientious appraiser always makes some search to verify the fact that no damaging statement has been made by his client as to the value of his property. Clients are forgetful, and occasionally the well prepared work of the appraiser goes for naught because at some previous time his client, let us say, has made application for the reduction of the assessed value of his property, in which he has asserted vehemently in a public record open to all, that the premises were worth no more than a particular sum. All possibilities for "admissions against interest" by the client bear at least the reasonable investigation of the appraiser.

THE CLAIMS OF THE PLAINTIFF

In litigation involving claims for damages to property, a thorough appraiser when he represents the defendant, reads the petition or complaint carefully, to determine exactly the facts upon which the plaintiff bases his claim. It is often possible in advance to discount the validity of such claims. For example: The author was asked to represent the defendant in connection with a claim for damages in the sum of $30,000, it having been the contention of plaintiff, among other things, that by reason of a change of grade accomplished by the defendant, rain water was diverted toward the plaintiff's property, causing a weakness in and undermining of the foundations and superstructure of the building.

There could be no question that some compensation was due the plaintiff upon other grounds, but investigation developed no evidence of water damage. There was no indication on the visible portions of the exterior and interior of water having entered into or around same. The author approached the manager of a company occupying the ground floor of the building as a tenant. From him it was learned

that the tenant had been in possession for over 15 years, and that at no time, with but one exception, had any water entered the basement from the exterior, and that at no time had the tenant requested, nor the landlord granted any abatement of rent. The exception referred to resulted from the bursting of a sewer main in front of the property which caused an overflow into the basement. This condition existed for about 10 days, necessitating only the cleaning of the basement by the tenant, and not by the landlord. These findings were eventually brought to the attention of the opposing counsel, who subsequently omitted this portion of his claim from the suit.

At times a certain amount of detective work discloses actual falsity in the plaintiff's claim. The author had occasion to represent a defendant in a case, also involving a claim for water damage to basement walls and foundations by reason of a change of grade. The property in question was the residence of the plaintiff. On several visits to the basement after heavy rains no evidence of the condition complained of was visible. On a subsequent occasion, however, at a time when no rainfall had occurred for several days, a damp spot was noticed on one of the basement walls. An inspection of the outside of the building opposite the damp spot, indicated the existence of a downspout and sewer connection at this point, with a sizable crack in the portion of the sewer pipe adjacent to the house. A subsequent early morning visit was made to the premises without a previous appointment with the owner, and the author discovered a hose resting in the protruding end of the sewer pipe, with the water turned on fully. Needless to say, no verdict was forthcoming to this complainant by reason of water damage.

AVAILABLE RECORDS

The appraiser should bear in mind that there exist numerous compilations of material, records, census data, etc., which now and then are most helpful. If the author may be pardoned for one more personal reference, he points to an action for damages for change of grade, by reason of which the plaintiff owner claimed that it became necessary to rent his property to colored people at a greatly reduced rental, whereas previous to the change of grade, such had not been the case. The damage took place in the year 1930. An investigation of the census records prepared by the United States Government and other agencies, disclosed that the colored population in an area approximately one-half mile square, including the premises in question, which were about in the center, had increased gradually from 15 out of a total of 3,588 persons in the year 1910, to 1,097 out of a total of 3,580 people in 1930. Such information readily refuted the claim made by plaintiff.

FORMAL BRIEFS

Whether actually utilized on the witness stand or not, it is well to prepare a formal brief containing a careful description of the property, photographs of if, as well as an exposition of all the information used in the determination of value, together with the source from which each was gleaned. The brief should contain all mathematical computations and formulae used, together with a description of the method adopted and its details. Such a brief may seem needless at first hand. However, it serves at least four useful purposes:

First—It provides a record to which reference may be made to refresh one's recollection of the facts before taking the stand, and to substantiate any statement made by the appraiser.

Second—It assists counsel materially in the examination and cross examination of witnesses at the trial of the case.

Third—It gives the appraiser a bird's eye view of the work in its entirety, enabling him to make certain that each statement and detail is consistent with every other, like the cogs of a smooth running wheel.

Fourth—Its preparation, dictation, and subsequent examination are fruitful of ideas, which are often suggested by the very act of writing out one's thoughts.

The witness should memorize as much of the data as is possible, as frequent reference to written memoranda while on the witness stand is inadvisable.

CONFERENCE WITH COUNSEL

It is well to bear in mind that most attorneys are not thoroughly schooled in the art of real property appraising, and that most appraisers are not thoroughly schooled in the law. Hence, in order to insure a smooth examination, the appraiser should confer with counsel before taking the stand, and review fully the questions which are to be asked of him and the answers he expects to give, as well as expected questions from and answers to the opposing counsel.

LEGAL DEFINITIONS

Ordinarily in court work, the appraiser's opinion is required to be that of "market value." Legal definitions of this term differ in different jurisdictions. Some elements of value are permitted to be considered by the appraiser in some jurisdictions which are not permitted in others. Hence, he should familiarize himself with the law in this respect. Furthermore, in damage suits there are elements which in the minds of many, contribute to the damage done by an improvement of one sort or another which are, however, not compensable in law. The appraiser should know the law in this respect. It is suggested, however, that in preparing his conclusions, he separate the various elements of damage and assign a value to each, including those which are not properly before the jury, in order to enable his counsel to combat erroneous and excessive claims by the opposing party, who may have included in the amount he requests, items which are not permissible.

There are other legal phases of damage and condemnation suits with which the testifying appraiser should acquaint himself. For example: Up to a short time ago there was no settled rule in our courts as to the time to which the appraiser's opinion of value should apply; that is to say, in some cases testimony was permitted to show the value of the property just previous to the occurrence which caused the damage, and its value at the time of trial. This procedure invariably raised the question of depreciation, if any, which had occurred in the interim. Pursuant to a recent Court of Appeals decision, a rule has been definitely established whereby values are given as of a time immediately preceding the damage, and immediately following the damage, so that no consideration need be given to natural depreciation.

PERSONAL IMPRESSIONS

Since, as has been pointed out, there is a wide divergence between opinions of value given by the different experts testifying in a particular case, and since the testimony of an appraiser is generally technical, uninteresting, and therefore not absorbed in detail by the members of a jury, the verdict often depends upon the general impression left by the expert. The first essential, therefore, of a successful testifying appraiser is the use of a manner which bespeaks frankness, honesty, and impartiality. He should speak loudly enough to be heard and to radiate the idea

of confidence in the truth and correctness of his testimony, but should never raise his voice above this pitch. It is a device many times used by cross examining attorneys for the purpose of harassing and confusing the witness, to argue with him in a belligerent manner. In such cases the appraiser should never permit his anger to appear upon the surface. His answers should be given quietly and gentlemanly, regardless of the manner in which the questions are put.

While as has been stated, the preparation should be sufficiently complete to enable an answer to any pertinent question, it may be, nevertheless, that a question will be asked, the answer to which the witness does not know. It is always the lesser of two evils to admit lack of knowledge, rather than to improvise an answer which may lead into a trap. Because the members of a jury, and often judges, are lay individuals in so far as appraisal technique is concerned, it is desirable when possible, to avoid highly technical answers, and to give explanations as clearly and as briefly as the nature of the question permits. Bantering and facetiousness have no place on the witness stand, as they detract from the impression of seriousness, which should always be given the "triers of the facts."

FEES

As in the case of any profession, there are some individuals who pose as experts, whose practices tend to discredit the profession as a whole. Appraisal ethics are probably not fully defined as yet. It should be considered improper in any case, to accept appraisal work which is to result in testimony under oath, upon a contingent fee basis. Neither payment to him, nor the amount of his compensation, should depend either upon the nature of his testimony or the verdict of a jury or court, nor should his opinion of value at any time be colored by the result his client desires to procure. For his own benefit, however, and for the benefit of his profession, the appraiser must at all times refrain from indulging in practices which might be termed questionable and maintain a dignity of action regardless of the cost to him in any individual case. Such procedure over the years is bound to bring him not only personal satisfaction and an enviable reputation, but an actual enhancement in his income as well.

♠ ♠ ♠

Appraising as an Economic Factor

By LYLE H. OLSON

THE rapid changes and uncertainties in our professional, business, and personal life and their relationship to national and world-wide movements, are tending to make us economically-minded.

In our national, industrial, and individual business affairs, we are giving thought to the amount and distribution of wealth, income, debts, taxes, and fixed charges. We grasp the economist's differentiation between "capital" or permanent goods, and "consumer" or temporary goods; and their relative contributions to our national wealth and income.

We produce charts and study the curves showing average trend of the rise and fall of prices, production, sales, profits, etc. These charts reveal the long and the short term cycles of business progress, which for different businesses and industries are as variable as the waves upon the sea. In the low phases of the cycle, we wait longingly for some genius, with a new stream line engine and a gyroscope to accelerate and stabilize business.

Properly made and applied fact-finding appraisals have an important function in preventing excessive swings of the economic pendulum resulting from lack of vision and unwarranted hopes and fears of mankind, and especially those of business leaders acting under emotional rather than rational impulses.

As appraisers we deal primarily with the capital goods of the economist. We recognize the stabilizing influence of the better utilization of these facilities, and that this is dependent upon a better knowledge and consideration of (a) the investment involved; (b) their character, extent, production, and capacity; (c) the fixed charges for taxes, depreciation, maintenance, insurance premiums, etc., involved in their ownership; and (d) their actual and potential utility and earning power.

It may be well in discussing this subject from the point of view of the appraiser, to define the terms and the boundaries within which we are to consider this phase of the economic problem. The capital goods with which we deal, comprise land; natural resources; construction and equipment for the production, transportation, and merchandising of other goods; and buildings for servicing, recreation, and dwelling purposes. We may also deal with consumer goods, but that is outside of the confines of this article. These capital goods of the economist, in the books of account and financial statements are generally classified as "fixed assets," and in such statements come under the supervision of the accountant.

The general public does not clearly differentiate between the services of the appraiser and the accountant, which is not surprising, as they have not defined the boundaries of their respective services very clearly themselves. A brief generalization is that the appraiser works with and draws his evidence from an inspection and analysis from the actual properties; and that the accountant works with and draws his evidence from the written

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Mr. Olson is nationally recognized as one of the outstanding authorities in the professional appraisal field. He is executive vice-president of The American Appraisal Company and directs his company's activities in the eastern territory with headquarters in New York City. His writings on economic and appraisal subjects have appeared in many newspapers and technical publications, and he has carried the appraisal message through personal addresses before numerous official and professional groups. He is chairman of the executive committee of the Association of Appraisal Executives, and served as chairman of the Co-ordination Committee for the Conference on Appraisal Practices held in Washington, D. C., last year under the auspices of the U. S. Chamber of Commerce. The Journal feels that Mr. Olson's comments, drawn as they are from his broad experience, are most enlightening and illustrative of the increasing importance of appraisals in the modern business scheme.—Ed.

records of transactions. The results of their labor and intellectual processes are usually embodied in reports, setting forth their findings. The reports of the appraiser are frequently used by the accountant and the reports of both the accountant and the appraiser are the raw materials for the statistician and the economist.

There recently came to my attention a description of the accountant from the writings of Elbert Hubbard. The older generation remembers how we used to make pilgrimages to East Aurora, part with Five Dollars to become an "Immortal" and receive the "Philistine" ever after (a dollar went further in those days). When we became more ambitious to be associated with captains of industry, we subscribed to the "Fra,"—this was before the days of the magazine "Fortune." But to return to our subject, Elbert Hubbard describes our good friends, the accountants, in the following words:

> "The typical auditor or accountant is a man past middle age, spare, wrinkled, intelligent, cold, passive, noncommittal, with eyes like a cod-fish, polite in contact, but at the same time unresponsive, cool, calm and as damnably composed as a concrete post or a plaster of paris cast; a human petrification with a heart of feldspar, and without charm or the friendly germ, minus passions and sense of humor. Happily, though, they seldom reproduce—and all of them finally go to Hell."

Even though this description is not characteristic of most of accountants appraisers come in contact with, it refers to characteristics that are sometimes not credited to appraisers. The appraiser is assumed to have many limitations, and the impression is that he is more human than the accountant; and for this contrasting picture, we will draw upon a description in Brand Whitlock's autobiography "Forty Years of It," taken from his experience while Mayor of Toledo, during his long controversial negotiations with public utilities, wherein he says: "It was easy enough to fix most of the elements of the return; the accountants could do that, * * * but the tremendous difficulty was to determine just what the investment was and what was a reasonable return on that investment," but here "the human equation was apparent" and with embarrassing irony (for the appraiser), he proceeds to say:

> "There was unhappily nobody but men to make valuations, and all the engineers who were competent were employed by street railway companies, and expected or hoped to continue to be employed by street railway companies, and they had evolved so many fantastic notions of 'intangible values' that they could account for almost any excess in artificial capitalization, and make the grossest exhibition of corporate greed in watering stocks appear like veritable self-denial in frugality and economy. Again and again in our prolonged negotiations we returned, as in a vicious circle, to this point; again and again we reached this impasse."

From the days of Brand Whitlock during the early attempts at regulation, to those of Franklin Roosevelt and the effort to regulate (or exterminate) the holding companies, the appraiser has been accused of being too human in his relationship to the public utility problem. The appraiser, however, may share the blame and the responsibilities with the general public, the underwriters, directors, lawyers, and judges, who have not become appraisal-minded in better understanding the standards, methods, and objectives of independent professional appraisers. The scientifically-minded appraiser has been receiving increasing recognition. The records of the Courts and Commissions are complete with evidence of cases lost through the failure to retain and support adequate and competent appraisal service.

These limitations in the practice and recognition may be in the process of being remedied, as the appraiser seems to be going through the agonizing process of acquiring self-expression. This is in part

evidence by the courses in Real Estate Appraising to be given under the auspices of the American Institute of Real Estate Appraisers and the University of Chicago; and the forming of such organizations as the Association of Appraisal Executives, the American Institute of Real Estate Appraisers, the Illinois Association of Certified Real Estate Appraisers, and the Society of Residential Appraisers. Appraisers have also taken to literature in manuals of standards of procedure, and codes of ethics, and articles for the education of the public. State legislatures have given consideration to the registration of appraisers, and placing them under legal restraint. The Securities Act and the Securities and Exchange Commission have placed additional responsibilities upon the appraisers.

It might be well, however, to permit the appraiser to express himself further before designing a straight-jacket to govern his conduct. The appraiser is a specialist, drawing his raw materials of experience from various wider fields of endeavor, such as those of the engineer, geologist, technician, accountant, trader, statistician, economist, and valuer, and it may be from the "surveyors" and "valuors" of England.

One may be a judge of values, however, without being an appraiser in a technical sense. Many individuals have experience and abilities that make them accepted judges of value. An appraiser should be one who as a result of training and experience, and as a vocation, specializes in property investigation, analysis, and reports. He is ordinarily concerned with the existence, extent, character, condition, normal cost, utility, and earning power of the properties. He determines and analyzes property facts, he may express his conclusions in terms of value or in the elements that indicate utility and value.

The appraiser bases his conclusions upon personal inspection of the property, knowledge of costs, prices and markets, judgment of condition and utility, factual analysis of economic conditions, and a mathematical and logical structure of supportable details.

The requirements and procedure of the appraiser may vary with the purpose of his reports for property information for such varied requirements as:

1. Condition, utility, and capacity for the production of a specific product.
2. Fixed charges resulting from ownership and operation.
3. Allowable depreciation and depletion charges and profit or loss on the sale or demolition of depreciable and wasting assets for computing taxable income.
4. "Rate base" for purpose of public utility regulations.
5. Normal depreciation and maintenance provision for including in costs of sales for various types of products, and of production or distribution operations.
6. Allocation of a recorded cost or purchase price as between tangible and intangible assets, and between classes and units of depreciable assets.
7. Investment represented on the basis of the cost of reproduction new, normal cost as of a prior date, or the equivalent of an original cost to the present or a prior owner.
8. Present conditions as represented by deterioration, obsolescence, inadequacy, excess facilities, suitability of location, etc.
9. Test of the reasonableness of the recorded book cost of the fixed assets and the depreciation reserve as stated on balance sheets, and of the fixed property charges included in operating statements.
10. Valuation for such various purposes as for continued use by a going concern, fair market value, security for bond and stock issues, placing and collecting fire insurance, a sale under given conditions, condemnation in whole or in part, allocation of equities between the various classes of security holders and creditors under Section 77B of the Bankruptcy Act, settlement of partnership or stock holders' interest, litigation in connection with common stock interests, damages, etc.

On account of the varied character of the appraiser's services, and the purpose of his findings, and the conditions under which they are to be used, it is necessary

that the appraiser's report be very carefully worded to fully define the nature of the service rendered, the limitations of his responsibility, and the qualifications applicable to his conclusions. It is equally desirable that it be read and interpreted with equal care by those relying upon the appraisal report.

There have been times in the past, may still be and continue to be times, when the appraiser's report is required more for the "scenery" of a financial statement than for the factual information that should be required in the appraiser's report. However, the day should be past when it will be sufficient to say "Appraised at $1,000,000.00 by John Doe."

We may even expect that the directors, bankers, accountants, and others using appraisal reports, will not feel that they have discharged their responsibility by relying upon an appraisal report that does not contain the factual or logical information in support of the findings, or is not prepared by an appraiser of tested experience, known to be competent and reliable.

The Securities Act of 1933 has had a very wholesome influence in giving emphasis to the responsibility of directors, underwriters, and others for relying on the reports of experts, and in placing direct responsibility on the appraiser, "who has, with his consent, been named as having prepared or certified any part of the Registration Statement, or as having prepared or certified any report or valuation which is used in connection with the registration statement," and who may be sued in case he made "an untrue statement of a material fact, or omitted to state a material fact required to be stated therein, or necessary to make the statement therein not misleading"; this provides no loopholes for evasion.

The accountants may make use of the appraiser's report in connection with the accountant's report, for testing, supplementing, or adjusting the fixed assets or the depreciation reserve accounts in the balance sheet, and the property charges contained in the operating statements. The accountants have been much more punctilious about this recently as evidenced by such qualifications in or to the accountant's certificate as:

> "These figures are derived from book figures and the amount does not purport to represent replacement cost or reproduction cost or values that could be realized from the sale thereof."
>
> "This amount includes tangibles and intangibles of an indeterminate amount not shown by the books."
>
> "We have not considered as being within the province of our duties as auditors to pass upon the practice of the company—with respect to renewals, retirements and depletion and the sufficiency of the provisions made therefore out of income."
>
> "We are not in a position to express an opinion regarding the adequacy of the provisions made for depreciation of property."
>
> "Losses or gains arising through disposal of assets included in group valuations—undeterminable in the absence of individual valuations—are included in the companies' ledger value of assets."

Dr. Joseph J. Klein, in a recent address to the Chemical Industry, made these observations applicable to fixed asset accounting and economics as follows:

> "I was recently told by a well-known economist and statistician that thorough-going research would probably disclose a very intimate relationship between effective rates of depreciation taken and the rate of equipment replacement; and that, in turn, rate of equipment replacement would probably be found to vary quite directly with operating success."
>
> "Economics, sometimes called the science of business, has fallen on evil days. As in so many other fields of human endeavor, there is a tremendous lag between the progress in the science of economics and in its application."
>
> "Studies undertaken by your industry might disclose, as has been surmised, that early replacements of equipment make directly for reduced prices to consumers, greater net profits to producers, fairer returns to investors, increased taxes to Federal and State governments . . ."

If the economic facts of business are not to be reflected in balance sheets and

financial statements, then they must be recorded in other records for the information of management and investors.

The fixed assets represent the largest investment appearing on the asset side of the balance sheet in industry, and the accounting for betterments, renewals, maintenance, depreciation, taxes, insurance, etc., are among the most important and at least controlled elements influencing the profit and loss statements.

Capital Goods or Fixed Assets, as represented by productive and useful properties, represent the broad foundations of our economic and capitalistic systems. The economics of industry must be founded upon property facts, capacity, ability to produce, the required investment, and fixed property charges required for operation. These figures may be, and usually are, quite different from the figures set up in the financial statements as representing fixed assets, depreciation, and other fixed charges. Their condition, utility, and value are changing continuously as a result of physical change, expansion and contraction, obsolescence as a result of changes in design, and inadequacy resulting from changes in product demand; changes in capacity requirements and manufacturing and distribution processes; and changes in the price levels, frequently the smallest of the factors of change.

Appraisal reports for accounting purposes may or may not include statements as to the "cost of reproduction new" or as to "value." These are terms of much controversy and some humor. The superficial thinker or humorist,—it is sometimes confusing to differentiate,—like to refer facetiously to "cost of reproduction" and "value." Of the former he asks: "Of what use is it?" and of the latter: "What is it?" You may painstakingly explain to him that the "cost of reproduction new" represents the investment that in accordance with market condition for material, labor, and services, would be required to replace the property. He may reply: "What difference does it make what is the cost of reproduction if a flour mill is located in the Sahara Desert?" Of course it would not be considered even pertinent repartee if in reply he were asked "If the hypothetical flour mill should explode as a result of spontaneous combustion and there were no one present to hear it, would there be any sound."

The fact that a property exists in a given location, furnishes presumptive evidence that its cost of reproduction is an economic fact of interest. It represents what would be required to replace the property new. The cost to reproduce the productive facilities of a business, and industry, or a nation, would be a much more significant economic fact than would the cost to the present or the original owner, the book cost, or the figures representing the fixed assets on the balance sheets.

The cost of reproduction new may or may not have any direct relation to value. It is, however, an important and determinable figure by which properties may be judged, compared, and considered in relation to value. It is the province of the appraiser to make such analysis and determination.

There are many factors entering into the consideration of value, coming under the general heading of depreciation and earning power, which we will not discuss here. However, accounting and financial statements include a "depreciation reserve" account, and the adequacy of the amount in this account depends upon the depreciation and earning power of the properties, which are only determinable by the inspection of the assets, and consideration of their utility.

We may approach value by appraisal methods, we may even determine and de-

fine value in specific cases. Value like truth, is difficult of accurate generalization. Our banker friends may settle the matter simply by saying that "Value is determined by earnings." But what are earnings? He does not really mean recorded earnings, we will credit him with referring to potential earning power. However, both are equally elusive and require careful and exhaustive analysis to make them a criterion of value, and even then the relation of potential earnings to value requires a knowledge of all of the related facts and the exercise of a discriminating appraisal judgment.

We should not minimize the past, present, or prospective earning capacity of an enterprise as an element of valuation. Earnings, however, are the most volatile element in business, dependent as they are upon management, products, short-time trends in style changes, consumer demands, market conditions, and many other variables.

Fixed assets are but one of the factors entering into the total value of an enterprise and should we attempt to value fixed assets primarily or solely on the basis of earnings, we would lose one of the important fixed points in the valuation, as important to the valuer as the North Star is to the navigator. The valuation of fixed assets and the valuation of an enterprise are two separate, though related problems.

This article is not a treatise on value, but it may be well to suggest that it is desirable to know and have well in mind that the cost of reproduction is one of the most fixed, usable, and informative facts in reference to property. It is a reasonable measure of what competitive conditions may be, and in the long run, earnings tend to seek their level upon the basis of the investment required to create the facilities and organization necessary to produce the earnings. This includes both the tangible and intangible assets of a going business.

If there had been a reasonable coordination between the required investment and the actual and anticipated earnings, we would not have had the fictitious extremes in values as reached during the years 1929 and 1932. The appraiser must report on the property facts in terms of utility, capacity, investment, accrued depreciation, requirements for rehabilitation, suitability for purpose for which used, fixed charges resulting from ownership and operation, and value.

There are many property facts of more practical importance than "value." Under existing conditions our accounting and financial reports do not contain adequate information on these property facts for the information of the economists or the investors. The details of these reports serve the requirements of management, engineers, and accountants. The totals of individual reports serve executives, financiers, and investors; and the combined figures from many reports serve the purposes of the analyst, statistician, and economist.

The appraiser may be serving management, directors, accountants, underwriters, lawyers, regulating authorities, statisticians, or economic planners; although he serves individual clients in his analysis and reporting on specific property facts, he is also contributing to better business and the general welfare; and his ultimate responsibility is to the general public, who may rely upon his reports.

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The Determination of Mortgage Risk

By FREDERICK M. BABCOCK, M. A. I.

MORTGAGE-LENDING institutions must determine which offered loans to accept. Increasing numbers of mortgage men have come to recognize that the techniques used to select loans present the central problem in conducting mortgage investment activities. Such techniques embrace the determination of mortgage risk.

Mortgage risk lies in the future. That is, a proposed mortgage cannot represent an investment loss until some future time and the hazard of loss exists from the time of commitment until recovery of investment has been made. Past situations and present conditions provide clues to the nature of the mortgage risk, but the determination of mortgage risk involves forcasting. Prediction and the weighting of probabilities forms the essence of mortgage-risk rating and appraisal procedure.

Each contemplated mortgage investment, at the time of analysis, may be considered to have an over-all degree of hazard. In this sense, mortgage risk is an entity to be measured in each given case. Furthermore, its measurement provides the basis for a decision with respect to the attractiveness of the loan. The over-all degree of hazard is not confined to the risk of finding the loan in default at some future time. It includes the risk introduced by troublesome collection experience before serious default, expenses in connection with foreclosure, the costs necessary to rehabilitate after acquisition, the losses of income during the period before resale, and, finally, the capital losses resulting from inability to secure full recovery of investment upon resale. It is the combination of the losses which result from loan failure which jointly constitutes the over-all degree of hazard to be measured.

It is evident that mortgages do not fall into two simple classes: the good and the bad. All mortgages have a degree of risk and the problem is to determine the *extent* to which they are *relatively* good. One may be amused when a mortgage man declares that his institution accepts only good mortgages and never accepts mortgages where there is any discernible risk involved. Realistic mortgage practice recognizes risk as a characteristic of all loans and considers the selection of better risks as the substance of good financial practice.

There is no simple way of lending money safely. It is necessary to subject each loan to detailed scrutiny before forming a judgment with respect to its investment quality. Some mortgage-lending institutions who operate on a national scale have given altogether too little consideration to the technical aspects of securing loans. They have usually been content to indicate to their representatives the areas in which they do not care to do business and to send regional appraisers to the eligible areas for periodic inspections of proposed new loans. For the most part the larger institutions have placed their reliance on men selected because they were presumed to be conservative, honest, and good business men. Reliance on local correspondents who are presumed to "know" valuations has been used as a substitute for reliance upon techniques and procedure. Of course reliance upon competent personnel is entirely justified, but experience has definitely indicated that the proper selection of loans requires that such personnel be thoroughly drilled in

valuation technique and risk-rating procedure.

In traditional practice the ratio which the mortgage loan bears to the value of the property has been assumed to be a direct measure of risk. That is, mortgage lenders have been prone to consider that this ratio alone was the real measure of risk and that, therefore, the problem of securing loans was confined almost entirely to the problem of appraising properties. However, experience indicates that all 50% loans are not safe and that all 90% loans are not hazardous. The ratio which the mortgage loan bears to the value of the property has been recognized as the basis for the measurement of risk, but at the same time the same mortgage lenders recognize that the ratio test is inadequate and insufficient.

It is apparent that other elements of hazard have to be considered. The character and ability of the mortgagor is extremely important. The rate of mortgage interest introduces hazard quite as much as does the principal obligation of the mortgage. Experience has indicated that well-designed mortgage loans are less hazardous and that the mortgage pattern, which embraces the provisions for the amortization of the loan, increases or diminishes hazard. Such factors are not included in the usual appraisal of property.

PROBABILITY

As has been indicated, each proposed mortgage loan has an over-all degree of risk which must be determined according to some sort of suitable scale. Because the hazards lie in the future, the problem of mortgage risk must be approached in terms of probability. If proper valuation and mortgage risk rating were susceptible to scientific analysis, the problem would actually be approached by means of the mathematics of probability. At the present time a mathematical approach is not feasible but the devices used in analyzing probability are still available and should be used in determining mortgage risk.

It is essential that the problem be recognized in terms of probability. The lender of mortgage money is not undertaking to determine which loans *are* going into default. He undertakes to determine the extent to which the loans are *likely* to go into default. He is, of course, unable to ascertain specifically whether or not a loan will result in foreclosure. On the other hand, he can have very definite opinions with respect to the relative likelihood of having trouble with several loans. In other words, his tests cannot be made against an absolute scale but can be made against a relative scale.

It is proper to ask how good such a system can be. The system that is needed involves an incisive analysis of hazard. The elements which contribute to the over-all degree of hazard are, of course, individual factors of risk. Obviously there are thousands of such factors in each case, thousands of elements which to varying degrees contribute to hazard or tend to eliminate the risk of default.

CATEGORIES

It is found to be desirable to classify the many factors which introduce risk into mortgages into major categories of risk. For illustration, all of the hazards associated with the borrower and the borrower's relation to the debt, may be separately analyzed and then grouped together to represent a rating of the borrower as a factor of risk. Considerations, such as the borrower's disposition, his earning capacity, his attitude toward obligations, and his time of life would constitute typical factors. Each of these factors may be separately rated and combined to constitute the probable over-all degree of risk

introduced by the borrower in the transaction. An expression of this hazard would constitute a rating of the borrower.

Similar combinations of factors may be made in other fields of risk. For illustration, the quality of mechanical equipment, the grade of material, the thickness of foundation walls, and the durability of the sheathing, constitute typical factors of risk which may be individually rated and combined to constitute a rating of the structure.

Risk factors such as the arrangement of rooms, the style of architecture, the attractiveness of the design, and the plot plan of the ground, are elements which may be individually rated, combined with other rated features, and made to constitute a rating of the risks introduced by the architectural characteristics of the proffered security.

There are a number of other major categories of risk. They must be treated separately and then combined to indicate a final risk rating. The probable relative importance of various risk factors is necessarily determined by judgment and by those examples of lending experience which mortgage institutions have been able to accumulate. Recent experience with the use of such a system has shown that the results are plausible, although they are not as yet susceptible to proof by actuarial methods. It will be found, however, that for practical purposes such a system, if intelligently and logically applied, is sufficiently well founded to permit lenders to make a simple grading of risks with reasonable confidence.

THE ADVANTAGES OF THE SYSTEM

Considerable significance attaches to these results. It means that mortgage lenders can select loans with greater confidence and certainty that their future experience with the investments is under reasonable control. The superiority of such a system over the one in which the ratio of the loan to the valuation is utilized as the sole measure of risk has been definitely demonstrated during the last year.

Real estate mortgage and construction interests have learned to concern themselves with matters which have to do with the social desirability of structures. Most architects in recent years have given a great deal of attention to community planning and the design of buildings which offer maximum functional design elements. It is therefore of interest to point out that unfortunately mortgage risk and social desirability do not always coincide. There are cases where safe mortgage lending is possible, but where the buildings and communities which are produced do not contribute facilities which have the maximum desirablity from the social point of view. Risk rating can test social desirability only in terms of its effects on mortgage security, marketability of real estate, and other determinants of investment quality.

As a result of the fact that mortgage risk and social desirability do not always coincide, it is deemed desirable, if not essential, to use defined property standards based upon factors which contribute to the social interest. In other words, insofar as communities can introduce standards by means of zoning restrictions, building codes and similar devices, and insofar as individual mortgage investments can be rated by means of a risk-rating system, such as the one suggested above, sound, safe mortgage loans can be made.

VALUATION AND RISK RATING

Valuation and risk rating differ. Appraisal determines an estimate of the value of pledged security. It does not embrace the entire problem because it is also necessary to investigate the proposed

mortgage investment as such, including the relationship between the loan and the security, and the relationship between the mortgagor and his program.

The appraisal of property as a basis for the measurement of security for a mortgage has very definite limitations. Appraisals cannot be relied upon to supplant a careful investigation of the mortgage investment itself. The limited significance of valuations may be indicated by pointing out the following inherent characteristics of valuations:

1. They are relatively inaccurate. Honest, careful, and conscientious appraisers disagree as to values and deliver reports which show little consistency. Advances in appraisal technique are not evident among the greater majority of the men and institutions who do such work and the very nature of the valuation problem is such that some considerable degree of disparity between appraisals will probably always be present. At the present time the wide disagreement as to proper methods is sufficient to show the inevitability of divergence of estimates.

2. Appraisals are made at and as of the time the loans are made. They represent estimates of values at that time. It may be pointed out that this figure does not frequently have much bearing upon the security. It measures the value on foreclosure only indirectly. Foreclosure security is not measured by an estimate of the property's value. Foreclosure security cannot be determined at the time that the loans are made. It may, of course, be assumed that the investment recovered from acquisition through foreclosure will be proportional to the present values of the properties. To this extent only does appraisal measure security.

3. Valuations are not descriptive of mortgage risk except in an indirect manner. Mortgages do not become delinquent because the value of the security declines; they go into default because the borrower is unable or unwilling to meet his payments. Borrowers are unable to meet payments because their incomes, usually, from the earnings of the property itself, decline. In other words, the amount, certainty, and duration of the income of the property constitute a much greater factor in mortgage risk than does the capital value of the property.

4. Reliance on valuations as the basis of mortgage credit extension is fraught with danger because it tends to divert attention from the zone of mortgage risk and to introduce an element of confidence, which is sometimes not justified by investigations which follow the risk rating line of thought. For illustration, the promotors of a hotel project may attempt to swing a new deal with limited working capital. The property may well have a value twice the amount of the mortgage, but still, as a project, fail and force the loan into default in an early period because of inadequate provision for operating funds.

For these and other similar reasons mortgage investments cannot be safely made if the principal basis for decisions is reliance upon appraisals. Such a declaration must not be interpreted as suggesting that valuation is of no significance. The point to be made is simply that, at best, appraisals are insufficient grounds for conclusions and that the procedure used to select mortgages must not place its sole or even its principal emphasis on valuation. Appraisal of properties becomes then simply a phase of a more general procedure which may be designated as mortgage risk determination or as mortgage hazard classification.

The two operations, valuation and risk rating, are distinct in that the one deals with the property, while the other deals

with the mortgage loan. Nevertheless, they involve related kinds of analyses. A discussion of the relative importance of valuation and risk rating cannot be pursued far before it proves to be futile. It is found that valuation cannot be accomplished properly without going through most of the analyses involved in risk rating. Likewise, risk rating cannot be accomplished without making a valuation. In the final analysis, both processes are essential and, in reality, valuation is simply an important part of the risk rating process.

TRADITIONAL VS PROPOSED PRACTICE

The relationship between valuation and risk rating in the determination of the acceptability of mortgages is brought out rather pointedly by contrasting traditional practice and proposed practice. Formerly mortgage security was measured by comparing the principal amount of the mortgage debt with the appraised value of the property. In proposed practice, valuation is less important—certainly in connection with loans on income-producing properties—and first consideration is given to a comparison between the income-producing capacity of the property and the periodic debt service on the mortgage.

Two properties may be expected to earn on the average, $20,000 per year each. Their values may also be alike, each property having a value estimated to be approximately $200,000. Traditional practice determines the amounts of acceptable loans largely by considering the ratio of the loan to the valuation. Because 60%, or 66%, first mortgages represent the maximum amounts considered attractive, loans on either of the two properties are acceptable in amounts ranging downward from $120,000, or $132,000.

The proposed practice which uses the risk rating concept, would investigate, among other factors, the expense ratio. For illustration, if the expected average net earnings of Property No. 1 were $20,000, determined by deducting $15,000 of expenses from a predicted average gross revenue of $35,000, the expense ratio would be 43%. If the expected average net earnings of Property No. 2 were $20,000, determined by deducting $30,000 of expenses from a predicted average gross revenue of $50,000, the expense ratio would be 60%.

Higher expense ratios introduce greater hazards in mortgage investment. Presume that the gross revenues of the two properties were to decline 25% in some future year, due to depressed conditions. Property No. 1 would then have gross revenues of $26,250, expenses of $15,000 and net returns of $11,250, which will support the debt service on a loan of $120,000, or $132,000. Property No. 2 would, when the 25% decline occurs, have gross revenues of $37,500, expenses of $30,000 and net returns of $7,500, which will not support the debt service on a loan whose principal amount exceeds $95,000. That is, because of the higher expense ratio, the acceptable loan on Property No. 2 must be smaller than the acceptable loan on Property No. 1. If the 25% decline represents a probable, as well as a possible, contingency, the maximum loans which are acceptable should not exceed the different limits which this form of analysis shows.

Of course the above illustration is crude and shows none of the refinements in the process, but it does indicate the line of thought pursued in rating mortgage risk and distinguishes between the results obtained when the loan value ratio is utilized as the primary basis of lending under those obtained by a risk rating procedure. The example also fails to show the manner in which other considerations than the ex-

pense ratio are taken into account in the risk rating process.

APPLICATION TO DWELLING LOANS

The same concept of risk rating is applicable to residential loans on small dwellings. The system has, under the procedure adopted by the Federal Housing Administration, been developed to a point where its practicability is unquestioned. The risk rating system, as applied to dwelling loans, is described in the following paragraphs:

The National Housing Act provides for mortgage risk classification in Section 205 (a), which requires that "mortgages accepted for insurance under this title (II) shall be so classified into groups that the mortgages in any group shall involve substantially similar risk characteristics. . ."

Presented in this form, mortgage risk rating was a somewhat new problem; and the solution of the problem required the Federal Housing Administration to explore new fields of thought. Risk rating had been proposed by the author to the Mortgage Conference of New York as a proper approach to institutional lending on income-producing properties. The application of such a system to lending in the small home field had not been attempted.

Examination of the problems of the Federal Housing Administration showed that it was not only necessary to determine the basis of acceptance and rejection of mortgages submitted for mutual mortgage insurance, but also to classify eligible mortgages according to different degrees of investment quality. Although this was a new problem, the solution was found to be simply a thorough codification of sound traditional mortgage practice.

The risk-rating system which was evolved is flexible and may be likened to an adjustable sieve, the mesh size of which may be modified to suit the particular purpose for which it is used. Property standards were established; these standards at any given time indicate the sizes of the meshes in the sieve. The risk rating system and procedure is relatively permanent, while the standards may be modified, if desirable, with changes in the policy of the agency.

The valuation and risk rating procedure of the Federal Housing Administration is described in detail in the Underwriting Manual issued by the Underwriting Section. Originally it was prepared for the use of the salaried staff and fee consultants engaged in inspection, appraisal, and other technical work in the sixty-three insuring offices of the Administration. Subsequently, however, the insistent demands of mortgage-lending companies and others made it desirable to supply the Underwriting Manual to the general public and they are now available and are used by a large number of individuals in the field of mortgage financing and home building.

CONTENT OF THE UNDERWRITING MANUAL

The Underwriting Manual contains two Parts, each of which contains six sections. The titles of the sections suggest the contents:

Part I. Underwriting Methods

1. Organization and Procedure.
2. Methods of Dwelling Valuation.
3. Methods of Dwelling Cost Estimation.
4. Methods of Architectural Inspection.
5. Methods of Real Estate Research.
6. Methods of Mortgage Risk Classification.

Part II. Risk Rating Instructions

1. Chief Underwriter's Grade Rating.
2. Rating of Property.
3. Rating of Neighborhood.
4. Rating of Relation of Property to Neighborhood.
5. Rating of Borrower.
6. Rating of Mortgage Pattern.

When the system was being evolved, lit-

erally thousands of factors affecting mortgage risk in dwelling properties were listed. These factors were then grouped together and classified according to similarity. At one stage eleven categories of risk were determined and used as the basis of classification. At that stage each of the factors were listed under the following headings:

1. Prevailing business conditions and stage of advancement of business cycle.
2. Economic development and prospects of the general region and hinterland.
3. Economic development and prospects of the metropolitan district.
4. Neighborhood characteristics and prospects.
5. Construction of buildings from point of view of durability.
6. Design and arrangement of buildings in terms of use and livability.
7. Attractiveness of buildings with respect to architectural taste and styling.
8. Conformity factors affecting the probable marketability of property.
9. Characteristics of the lender, especially his capacity to service the mortgage.
10. Characteristics and financial strength of the borrower.
11. The relationship between the borrower, the terms of the mortgage and the security.

It was found that there were none of the many factors which introduced risk into mortgage investment in dwellings which could not be readily classified under one or more of the above category headings. However, it was not expedient to use all the categories of risk in the program of the Federal Housing Administration. The risk factors in the first two categories were of such a nature that they could be taken into account by adjustments of general policy better than by permitting them to enter into the consideration of individual cases.

It was discovered that the third and fourth risk categories were better handled if combined into a single category described as "The Neighborhood." It would have subjected the Federal Housing Administration to considerable embarrassment to establish any system in which the cities of the United States were rated according to quality as areas in which to do mortgage lending. The same difficulty does not apply when neighborhoods are rated.

The fifth, sixth, and seventh risk categories were also combined. Perhaps it was unwise to do so. In any event the combination provided what appeared on the surface to be a simplification. The new category, which embraced all the factors of risk inherent in the characteristics of the physical property enclosed by the lot lines, was described as "The Property."

The eighth risk category was a most subtle one and its significance became increasingly apparent when consideration was given to the many factors which it contained. It was preserved in the final grouping under the designation, "Relation of Property to Neighborhood." It typified the fact that intelligent rating of features was never possible when factors of risk were isolated and that in most cases ratings had to give expression to the relationships between several factors. For illustration, the system had to ascribe reasonably high ratings to houses with one bath and relatively low ratings to other houses with one bath, if the latter houses were located in suburban communities where additional bath facilities were in demand and necessary to secure resale.

The ninth risk category, which attempted to rate the lending institutions themselves, could not be used in the final system. It was necessary to recognize an official equality between all institutions approved by the Administration. This category was therefore discarded.

This was not the case with the tenth category. The financial strength of the borrower was recognized as a major element in mortgage risk and greater emphasis is placed on the importance of the borrower than has been typical in general

mortgage practice heretofore. Here again the underlying concept of rating was evident. The borrower is not an isolated category of risk. It is necessary to rate him in relation to the proposed loan and the security. "The Borrower," as this category is now called, referred not only to the credit of the mortgagor, but to the relationship between the borrower's financial prospects and the proposed program of home acquisition he was about to undertake.

The eleventh risk category was also preserved in the final system and was designated as "The Mortgage Pattern." Features embraced in this category are designed to permit an exploration of the elements of mortgage risk introduced by the terms and provisions of the mortgage transaction when related to the quality and characteristics of the security and the borrower. For example, the ratio which the face amount of the loan bears to the value of the security is an important factor of risk in a mortgage. Likewise, the rate of mortgage interest is recognized as a factor of risk because higher rates of interest increase the debt service and make it more difficult for the borrower to meet his obligation. Factors such as the duration of the loan term, the provisions for prepayments, the presence of endorsers, and the fact that the borrower carries life insurance for the benefit of the lender, would be classified with the other risk features which together constitute the mortgage pattern.

There were, then, five general risk categories which were preserved and introduced into the direct analysis of mortgages submitted for insurance. These are:

1. The Property.
2. The Neighborhood.
3. The Relation of Property to Neighborhood.
4. The Borrower.
5. The Mortgage Pattern.

Further combination of individual features of risk were made until each of the above categories had not more than eleven separate features requiring consideration and rating.

FEW ARBITRARY RULES

There are very few arbitrary rating rules and these are confined almost exclusively to the rating of the Mortgage Pattern. The ratings ascribed are not absolutes, but relatives, and in almost every case represent degrees of hazard in terms of mortgage risk rather than comparisons with established standards of an arbitrary character. For illustration, the appraiser who rates "The Neighborhood" is not asked to rate "Transportation"; he is asked to rate "Adequacy of Transportation." The Mortgage Risk Examiner who rates "The Borrower" does not rate "Borrower's income"; he rates "Ability of Borrower to Pay."

The various features are ascribed weights which, in the judgment of the men who developed the system, represent a reasonable distribution of the probable relative importance of the various items which contribute to mortgage hazard. Inasmuch as the actual weights are undoubtedly combined in very different ways in the over-all hazard, the weights ascribed in the system probably represent little more than a plausible and probable typical distribution. As a consequence, the final conclusions are expressed only in terms of a general grade rating which divides the mortgages into four groups: Mortgage of Grade A, Grade B, Grade C, and Grade D. The first three grades, A, B and C, are considered to be mortgages having sufficient investment strength to be eligible for the mutual mortgage insurance of the Federal Housing Administration. Grade D mortgages are considered to represent hazards too great to justify coverage by the insurance.

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The Valuation and Mortgage Risk Rating Systems of the Federal Housing Administration

By AYERS J. DU BOIS, M. A. I.

IN accordance with Title II of the National Housing Act, the Federal Housing Administration has established a mutual system of insurance of mortgages on residential properties providing accommodations for no more than four families. Title II prohibits insurance of any mortgage lien which amounts to more than 80 per cent of the value of the property. This provision necessitates valuation by the Administration of the real estate security in each case.

Title II also requires that mortgages accepted for insurance be grouped so that the mortgages in each group shall possess "substantially similar risk characteristics" (and also maturity dates), thereby necessitating differentiation of and measurement of the varying degrees of over-all risk to which investments in these mortgages are subject.

Thus two simple requirements in the National Housing Act necessitate two broad and fundamental activities:

1. Valuation of real property.
2. Risk rating of mortgages on real property.

Dollar expressions of the value of residential properties have undergone extreme declines in recent years throughout the Nation. Hundreds of thousands of home owners with billions of dollars of mortgage liens upon their homes have seen their equities totally wiped out or made so small that refinancing of maturing indebtedness has been refused by owners of capital who would not expose their funds to the risks which they feared accompanied the uncertainties of the future. Even owners of defaulted mortgages upon foreclosing have been quite generally subjected to substantial losses when recovery of capital has been attempted through sale of the acquired properties.

No system of valuation or risk estimating heretofore utilized has been able to foresee and fully protect against the loss resulting from such cataclysmic events as have been witnessed in recent years, and probably none can be devised now which would give such full protection were a repetition of such events to take place. However, erroneous concepts and practices in appraisal technique and in the estimating of mortgage risk have been responsible for some of the losses which have occurred. These errors need not and should not be repeated. Use must be made of the best in traditional practices, but minds must be kept alert for the discovery of new ideas as research, such as the Federal Housing Administration has undertaken, develops new data.

Analysis of the Underwriting Manual of the Federal Housing Administration reveals the objective of its valuation activities. This objective is not to ascertain the cost of replacement of the properties pledged as mortgage security, although cost estimates are made and used by FHA Valuators. That is cost estimation, not value estimation. The confusing of replacement cost and value was one of the prevalent errors of traditional appraisal practice. The objective is not to ascertain the greatest price that could be obtained at the time of valuation from purchasers then in the market to buy, although sales prices are included in the data used by FHA

Valuators. That is market price estimation. The failure to distinguish between market prices obtainable and value was also one of the mistakes of traditional appraisal technique. What then does the Underwriting Manual reveal as the objective of FHA valuation? Just this: the objective is to ascertain the price which typical buyers of the class who would be interested in purchasing the property being appraised would be warranted in paying for it. That is value estimation, and is the true objective of valuation work.

WARRANTED PRICE

The FHA Underwriting Manual also lays down the basis for determining that which is a warranted price. It indicates that prices which could be obtained if the higher prices paid in the past, whether then warranted or not, are not proper measures of value at later dates, and that to assume that they are would be to assume conditions that do not exist and may never again exist. It also indicates that prices obtainable at the time of appraisal are not the basis of warrantability, for such prices may be either too high or too low to be acceptable as fair. The Manual indicates that the only correct basis upon which to determine a warranted price, that is, the value of a given property, is as follows:

(1) Estimation of the extent of the present and future capability of the property to serve the needs or desires of the class of people who would seek to own it, in consideration of:

A. Its physical characteristics.
B. Its present and probable future environment.
C. Its relation to its environment, and
D. The future general economic prospects of the property, its neighborhood, and the city, region, and Nation.

(2) Consideration of the costs, direct and indirect, which would be involved in purchasing an equally desirable site and erecting thereon structures which would be duplicates of those being considered in the appraisal.

(3) Consideration of the prices at which other properties of equal desirability and utility are obtainable from well-informed owners who, in selling, would be exercising intelligence and acting voluntarily and without necessity.

(4) Consideration and contrast of the advantages and disadvantages attendant upon ownership of or tenantship in the property or in another one equally desirable and suitable.

Section 2 of Part I of the Underwriting Manual of the Federal Housing Administration is entitled, "Methods of Dwelling Valuation." At the outset this Section states:

> "The word 'value' refers to the ability of useful things to produce benefits for or to meet the needs or satisfy the desires of human beings. The meeting of such needs or the satisfying of such desires requires the occurrence of events which always lie in the future, never in the past; for when a need is met or a desire is satisfied, it ceases to exist. It is true, therefore, to state that value does not exist unless future benefits are in prospect, and that its measure is the present worth of benefits which will be realized only upon the occurrence of future events."

This is the foundation in the Federal Housing Administration valuation system. The next paragraph immediately builds upon this foundation in these words:

> "Value, as applied to real estate, may be interpreted as meaning the price which a well-informed buyer, acting intelligently, voluntarily, and without necessity, would be justified or warranted in paying for the property appraised, and a well-informed seller of the property, acting intelligently, voluntarily, and without necessity, would be warranted in accepting. The buyer in any case is not warranted in paying more than it would cost him to reproduce the property just as it stands and environed as it is, nor is he warranted in paying any more than it would cost him to purchase other properties affording equal advantages and subject to equal disadvantages. Another statement of this same principle is this: the buyer is not warranted in paying any more, and the seller is not war-

ranted in accepting any less, than the price at which other properties having equal facilities, equal desirability, and equal utility, and subject to the same risk of loss or possibility of enhancement of desirability or value in the future, can be purchased."

DOLLAR VALUE

The Manual recognizes that while value, in the last analysis, is an abstract, indeterminate thing, estimates with regard to it, i.e. valuations, are usually expressed in monetary units, such as dollars. They may also be expressed in terms of degree, such as very small, medium, great, or greatest value. The expression of a value estimate in dollars can be of no significance or practical use unless it means that a buyer would be warranted in buying the property for a price equal to its estimated dollar value, for dollars are worthless except for their ability to purchase goods. The act of purchase requires a buyer and seller. Thus it is seen that valuation presupposes the existence of a buyer and a seller, a fact stated as the first of the "Axioms of Valuation" listed in the FHA Manual.

WELL-INFORMED PARTIES

In the second Manual quotation given above it is to be noted that the buyer and seller mentioned are described as being well-informed. This eliminates the attaching of importance for valuation purposes to the actions of poorly-informed individuals who frequently are found to have paid or received prices for property which were not fair, and, therefore, not justified or warranted. The poorly-informed buyer and seller must, therefore, be ruled out in value-estimating activities.

VOLUNTARY ACTION

The FHA Manual recognizes, further, that the well-informed buyer or seller presupposed in valuation must be conceived to act as intelligence would direct them to do. But that is not sufficient. Intelligent judgment might dictate payment or acceptance of a price which was warranted in view of some certain compelling and extraordinary circumstances which restricted the free exercise of will either of the buyer or the seller, but which was not warranted in consideration of the service of which the property was capable in the future. Therefore, the buyer and seller must be conceived to act voluntarily and without necessity.

PECULIAR PARTIES

Recognition is also given to the fact that the buyer presupposed in valuation is not one of a peculiar type, such as a person who is actuated by motives which would not commonly actuate other people, but one who can be readily identified as one of a group of many people of similar characteristics and needs. This eliminates consideration of the buyer who because of circumstances peculiar only to his own affairs would be warranted in paying a higher price than anybody else.

SIGNIFICANCE OF SALES PRICE

Since a buyer and seller are presupposed when a valuation is made, it follows necessarily that prices paid by buyers and accepted or asked by sellers in actual transactions are useful valuation data. This the Manual recognizes as another axiom of valuation. However, the limitations surrounding the unintelligent use of sales and listing price data are dwelt on at length, and it is pointed out that the significance of sales prices appears only when:

1. Information about the intelligence, wisdom, circumstances, and skill in bargaining of the buyers and sellers is obtained and analyzed.
2. Information regarding the times and terms of the sales is obtained.

3. The effect of changed economic conditions since the times of the sales is considered and determined.
4. It is remembered that in times of pyramiding of sales prices, or extraordinarily great demand, or unusually limited supply, or rapidly changing general price levels, prices paid are poor evidences of that which is warranted.
5. Full information regarding the physical characteristics, environments, present and prospective future utility and desirability, condition of title, etc., of the properties which were sold and of the one being appraised, is obtained.

In discussing the use of sales data, the Manual points out that the mere fact that a price paid was obtained at a forced sale does not necessarily mean that it was poor value evidence at the time. This is made clear by pointing out that in a declining market if quick action is not taken, a lower price will have to be accepted later on so that even though the seller was obliged to sell, he may have received as high a price as was then warranted, or may even have received more than was warranted.

OTHER FACTORS

Since the buyer and seller presupposed by valuation are well-informed persons and act intelligently, the Manual points out that consideration must be given to asking prices for, and comparative desirability and stability of, other properties available for purchase; to construction costs; to rental values, tax burdens, maintenance costs; to investment yields; to business conditions and prospects in the community and nation; to all factors creating or tending to enhance or destroy value, desirability, and utility of the property; and so on. These matters are stated also in the "Axioms of Valuation," which are listed in the Manual as follows:

"1. Valuation presupposes the existence of a buyer.
"2. Valuation presupposes the existence of a seller.
"3. Valuation presupposes a sale in which the buyer is well-informed, and acts intelligently, voluntarily, and without necessity.
"4. Valuation presupposes a sale in which the seller is well-informed, and acts intelligently, voluntarily, and without necessity.
"5. Valuation endeavors to estimate prices which are fair and warranted, rather than prices which can be obtained in the market.
"6. Valuation recognizes the importance and usefulness of sales prices provided it is determined whether or not such sales prices were fair warranted; and provided the motives, intelligence, and wisdom of the parties to the sales, as well as other conditions surrounding them and influencing the determination of the sales prices, are ascertained and weighed.
"7. Valuation presupposes and recognizes that intelligent buyers and sellers consider the utility of real property.
"8. Valuation recognizes that replacement cost at the time of appraisal sets one approximate upper limit of possible value.
"9. Valuation recognizes that value may be much less than replacement cost.
"10. Valuation recognizes that the prices at which competing properties are available for purchase set, or tend to set, the approximate upper limit of possible value.
"11. Valuation presupposes and recognizes that well-informed buyers and sellers are commonly aware of the existence of competing properties and compare their respective asking prices, desirability, advantages and disadvantages, and future prospects.
"12. Valuation presupposes and recognizes that well-informed buyers and sellers compare and contrast the advantages and disadvantages of renting with those involved in ownership."

From the axioms of valuation a logical basic valuation procedure is deduced. It is stated in the Manual as follows:

"These axioms or principles of valuation indicate that correct residential valuation procedure must include consideration of the following matters:
"1. Physical characteristics of the property.
"2. Existing and prospective environing influences—adjacent, nearby, city-wide, regional, and National—which affect, or may or will affect, the utility or desirability of the property.
"3. Replacement cost in new condition of the improvements, their physical condition when appraised, and their probable future useful life.
"4. Sales and listing prices and, equally as important, the conditions surrounding them.
"5. Motives, viewpoints, and reactions of buyers and sellers.
"6. Rental values.
"7. Tax, assessment, and maintenance burdens

incident to ownership or avoided by 'tenantship.'

"8. Comparisons of competing residential properties and their sales or asking prices to establish relative desirability and utility, and the consistency of the valuation reported."

THE INCOME APPROACH

The use of valuation data is dwelt on at some length. Unlike some published discourses on the valuation of residential properties, the fact that about 50% of American homes are rented, and owned or bought for the rentals which they can produce, is recognized in the Manual. The significance of this fact is also recognized, namely, that after the newness of homes has worn away—and this has not taken long in recent decades—they generally take on the aspects of investment properties, and consequently their worth as such largely determines their value. This places emphasis on monthly rental values and net incomes which may be produced by residential properties falling within the lower value brackets. It is pointed out that since monthly rental values are greater or lesser as value is greater or lesser; since monthly rental values move up or down in close harmony with changing ability of people to pay rent; since such ability depends upon incomes; since it is these incomes of people which determine the dollar expressions of estimated values; and since there is always a rental market, even though there be no sales market, therefore, it follows that analyses based on the rental values of residential properties are very excellent evidences of value, especially during times of declining price levels when the realty sales market freezes up.

AVERAGES

In dealing with the use of valuation data, the Manual presents warnings regarding the use of averages and regarding the widely prevalent erroneous concept called normal value. It points out that averages may be not only lacking in significance and usefulness in valuation work but that they may be actually misleading. The average price of homes in a neighborhood may be substantially different from the price of any one of the homes, and therefore of hardly any significance in valuing any of them. The average vacancy in the city may be not at all indicative of the probable vacancy loss which will apply in the case of a specific property. Instead of averages, it is the typical or most common condition which is apt to be significant in solving valuation problems. Thus the value of typical homes in a given neighborhood is very important information. Likewise the vacancy condition in the neighborhood in typical buildings of the kind being appraised is also very useful.

NORMAL VALUE

As to normal value, it is pointed out that there can be no normal real estate value in the sense of a permanent, fixed value level to which warranted prices will naturally gravitate as time passes, simply because there is no normal purchasing power of money. In other words, the utility and desirability of a property can remain unchanged during a certain period of time but the dollar valuation of this utility can vary widely because of changed economic conditions. A dollar might buy half (or, perhaps twice) as much goods at the end of that period as it could at the beginning, and therefore there could be no unchanging dollar value of the property during the period that could be designated as "normal," even though the property utility remained constant. Then, if the property was worth $5,000 at the outset, shall we say that that is its normal value at the end of the period because its utility and desirability have remained un-

changed, even though its warranted price is then $10,000 and these ten thousand dollars can buy only as much then as the $5,000 could buy in the beginning. Or shall we say the normal value is $5,000 even though at the end of the period the warranted price is $2,500 which number of dollars can then buy as much as the $5,000 could buy in the start?

Obviously, the answer is "no" to each question, for if the normal value—supposedly fair value—were reported at the end of the period as $5,000, then in the first case a seller would receive but half as much purchasing power in selling for $5,000 as he would be entitled to, and would receive twice as much as he would be entitled to in the second case. It is pointed out that the only normal value there can be under the existing economic order is that which is normal or fair in view of currently existing conditions rather than past or hoped-for future ones. Thus if residential accommodations of a certain type are readily obtainable for $60 per month at a given time, $60 is the normal monthly rental value of such accommodations at that time. Later on the normal rental value might be $40, or $50, or $70, or some other figure. However, the Manual points out that if the purchasing power of money could be permanently fixed, then normal real estate value could, perhaps, exist in the sense of a fixed value level to which warranted prices would naturally and inevitably gravitate and conform.

TREATMENT OF DATA

The Manual discusses the accepted methods of gathering and analyzing data, and the several steps and processes used in valuation estimation, in accordance with what is believed to be the best thought and concepts of the day. Useful life estimation, depreciation estimation, cost estimation, price estimation by comparative analyses, capitalization of prospective net income, residential district declines, causes of obsolescence, and other pertinent subjects are discussed. Special emphasis is placed on the so-called "Comparative Method" of valuation. Deliberate over-valuation and under-valuation are both condemned.

ARCHITECTURAL INSPECTORS

One original feature of the Federal Housing Administration system is the use of qualified men designated "Architectural Inspectors" to inspect the buildings involved in appraisals for the purpose of ascertaining their structural soundness and durability, their functional efficiency, and their fitness, and also for the purpose of estimating their fair cost of replacement in new condition. The cost estimates thus obtained are furnished to the FHA Valuators for their use in the cost estimation phase of the valuation technique. Architectural Inspectors also analyze drawings and specifications in cases involving proposed new structures and estimate their fair cost of construction for the use of the Valuator on the case.

RISK-RATING

The second function of Underwriting Departments in Insuring Offices, which was named at the beginning of this article, is the risk-rating of mortgages. The system of risk-rating now in use was conceived and evolved by the Chief of the Underwriting Section of the Underwriting and Realty Division of Federal Housing Administration. It is a very constructive and valuable contribution to the field of real estate mortgage lending. The system is designed for the purpose of determining the over-all degrees of risk inherent in individual real estate mortgage transactions.

Over-all risk is comprised of and is the resultant of risks inherent in or contributed by the several elements into which mortgage transactions can be resolved. The Federal Housing Administration system of risk-rating classifies risk elements into five categories:

1. The Property.
2. The Neighborhood.
3. The Relation of the Property to Neighborhood.
4. The Borrower.
5. The Mortgage Pattern.

Matters pertaining to each of these category titles are considered from the standpoint of their effect on risk. In this connection, it is appropriate to point out that anything which adversely affects desirability, utility, value, future useful life, marketability, stability, the owner's desire to retain and maintain his property, or the owner's willingness to meet his mortgage obligations, is an element of risk in the mortgage transaction involving the property.

Thus if a defective structural condition, or a poor floor plan exists in a given instance, marketability and value are affected adversely and therefore mortgage risk is created in a greater degree than would be the case if these conditions did not exist. If a residential neighborhood is threatened with invasion by inharmonious property uses, or if it is poorly served with utilities or transportation, desirability and length of future life are adversely affected and therefore mortgage risk results in enhanced measure. If a residential building is surrounded by others which are much less costly, or if it is of such a use-type as to be non-conforming in this respect with structures which characterize its environment, greater risk is created than if it were in better relationship to its neighborhood.

If the borrower (owner) is of questionable character or unambitious and apathetic, or if his home is about of the maximum value which he can afford to own, more risk in the mortgage transaction is created than if his character were unquestionable and the ratio of his income to the value of his home such that its maintenance would be less burdensome to him. If the loan were 80% of the estimated property value, and the estimated remaining useful life of the building were equal to the life of the mortgage, greater mortgage risk would exist than if the loan were a 50% one and the useful building life twice the term of the mortgage. Such matters as these are considered in rating the features which comprise the five risk categories of the Federal Housing Administration risk-rating system.

There are over forty risk features in the five categories. These features are weighted according to their relative importance in each category, and ratings representative of six degrees of excellence (or poorness) may be made with regard to each feature; so that if the best conditions with regard to each feature in a category existed in a given case, the category rating would be 100%. The risk features as they appear on the rating grids which are printed and used in the various Underwriting Department reports appear on page 331.

HOW TO USE THE RATING GRIDS

The method of using the rating grids is fully described in the Manual. Briefly, it is as follows: Assume that an Architectural Inspector is inspecting a property and is ready to record his risk ratings on his report. The first feature is "General Layout." He has judged the conditions with regard to the general layout of the property and decided that a good, but not the best, condition exists, and he concludes that the feature should be given a rating in the "4" column. He places an "X" in that column, and immediately transfers to the extreme right-hand col-

RATING OF PROPERTY:

	FEATURE	Reject	1	2	3	4	5	Rating
Fitness	General Layout	0	3.0	6.0	9.0	12.0	15.0	
	Design of Property	0	1.6	3.2	4.8	6.4	8.0	
	Suitability to Climate	0	1.4	2.8	4.2	5.6	7.0	
Function	Livability	0	3.0	6.0	9.0	12.0	15.0	
	Light and Air	0	1.6	3.2	4.8	6.4	8.0	
	Mechanical Equipment	0	1.4	2.8	4.2	5.6	7.0	
	Accessory Buildings	0	.6	1.2	1.8	2.4	3.0	
	Special Equipment	0	.4	.8	1.2	1.6	2.0	
Durability	Structural Soundness	0	4.0	8.0	12.0	16.0	20.0	
	Resistance to Elements	0	2.0	4.0	6.0	8.0	10.0	
	Resistance to Use	0	1.0	2.0	3.0	4.0	5.0	
						Total Rating		%

RATING OF NEIGHBORHOOD:

FEATURE	Reject	1	2	3	4	5	Rating
Stability of the Neighborhood	0	5	10	15	20	25	
Protection from Adverse Influences	0	4	8	12	16	20	
Adequacy of Transportation	0	3	6	9	12	15	
Appeal of the Neighborhood	0	2	4	6	8	10	
Sufficiency of Utilities and Conveniences	0	2	4	6	8	10	
Level of Taxes and Special Assessments	0	2	4	6	8	10	
Presence of Civic, Social, and Commercial Centers	0	1	2	3	4	5	
Topography and Special Hazards of Neighborhood	0	1	2	3	4	5	
					Total Rating		%

RATING OF RELATION OF PROPERTY TO NEIGHBORHOOD:

FEATURE	Reject	1	2	3	4	5	Rating
Conformity as to Type	0	3	6	9	12	15	
Conformity as to Usefulness and Function	0	3	6	9	12	15	
Conformity as to Physical Condition	0	2	4	6	8	10	
Conformity as to Architecture	0	2	4	6	8	10	
Relative Adequacy of Utilities and Municipal Improvements	0	2	4	6	8	10	
Relative Accessibility to Neighborhood Conveniences	0	2	4	6	8	10	
Relative Freedom from Nuisances	0	2	4	6	8	10	
Conformity as to Lot Characteristics	0	2	4	6	8	10	
Conformity as to Probable Remaining Useful Life	0	1	2	3	4	5	
Conformity as to Placing of Buildings on Lot	0	1	2	3	4	5	
					Total Rating		%

RATING OF BORROWER:

FEATURE	Reject	1	2	3	4	5	Rating
Character	0	6.0	12.0	18.0	24.0	30.0	
Attitude Toward Obligations	0	3.0	6.0	9.0	12.0	15.0	
Ability to Pay	0	3.0	6.0	9.0	12.0	15.0	
Prospects for Future	0	2.4	4.8	7.2	9.6	12.0	
Business History	0	2.0	4.0	6.0	8.0	10.0	
Ratio Value of Property to Annual Income	0	1.4	2.8	4.2	5.6	7.0	
Ratio Monthly Mortgage Obligation to Income	0	1.2	2.4	3.6	4.8	6.0	
Associates	0	1.0	2.0	3.0	4.0	5.0	
					Total Rating		%

RATING OF MORTGAGE PATTERN:

FEATURE	Reject	1	2	3	4	5	Rating
Ratio of Loan to Value	0	30	35	40	45	50	
Ratio of Useful Building Life to Life of Mortgage	0		8	12	16	20	
Interest Rate	0	3	6	9	12	15	
Amortization Provisions	0	2	4	6	8	10	
Service Charges by Mortgagee	0	1	2	3	4	5	
					Total Rating		%

umn of the grid the figure appearing in "4" column after this feature, "12" in this case.

He then considers the design of the buildings from the standpoint of their relative excellence, and decides upon a proper rating which he enters and records as in the case of the first feature. This process is followed for all the features, and in the end he adds the figures in the right-hand column, thereby obtaining the "Total Rating" for the category.

If conditions with regard to any one of the features seems so bad that a loan on the property would be too hazardous, ratings are made in the "Reject" column. The category then is rated "Reject," and the case is declined for insurance. Likewise, if any category rating is less than 50%, rejection occurs. All of the features in the five categories are rated in a similar manner to that described above.

In the case of the ratings of the feature "Ratio of Value of Property to Annual Income," rejection occurs if the value is more than four times such income, unless the owner has a large equity and is able to carry the small mortgage out of income with ease.

In making ratings of the features in the Mortgage Pattern, the following rules are effective:

AMORTIZATION PROVISIONS

Present regulations permit only one type of amortization, viz., level monthly payments applied first to interest and remainder to principle. This type of amortization is given a rating in the "3" column.

SERVICE CHARGES BY MORTGAGEE

When maximum monthly service charge permitted by official regulations is made

RATIO OF LOAN TO VALUE		Rate in column
If loan is 50% or less	of FHA Valuation	5
over 50% but less than 60%	of FHA Valuation	4
60% but less than 70%	of FHA Valuation	3
70% but less than 75%	of FHA Valuation	2
75% to and including 80%	of FHA Valuation	1
over 80%	of FHA Valuation	Reject

RATIO OF USEFUL BUILDING LIFE TO LIFE OF MORTGAGE		Rate in column
If the useful building life is 200% or more	of life of mortgage	5
175% but less than 200%	of life of mortgage	4
150% but less than 175%	of life of mortgage	3
125% but less than 150%	of life of mortgage	2
100% but less than 125%	of life of mortgage	1
Under 100%	of life of mortgage	Reject

INTEREST RATE		Rate in column
If the interest rate is 4%	or less	5
over 4%	up to and including 4½%	4
4½%	up to and including 5%	3
5%	up to and including 5½%	2
5½%		Reject

by mortgagee, rating is made in column "1."

When no monthly service charge is made by mortgagee, rating is made in column "5."

In other cases rating is made in columns "2," "3," or "4," according to the amount of the charge.

The Manual discusses fully the considerations which must be made in order to determine feature ratings. The names of the features will suggest to the reader the nature of these considerations.

When a case is received and accepted for investigation, the following steps, briefly described, are taken:

1. A Preliminary Examiner makes an initial test of eligibility.
2. If the test results in approval, an Architectural Inspector inspects the property, estimates the cost of replacing the improvements, in new condition, and makes risk ratings of the features in the "Property" category.
3. A Valuator inspects the property and the neighborhood, and rates the features in the "Neighborhood" and "Relation of Property to Neighborhood" categories, recording his findings on his report form.
4. A Mortgage Risk Examiner rates the features in the "Borrower" and "Mortgage Pattern" categories, recording his decisions on his report form.
5. All reports are reviewed and submitted to the Chief Underwriter who summarizes the five category ratings and averages them. If one or more risk features have received "reject" ratings, rejection of the case results. If any category rating is less than 50%, rejection results. If the average of the category ratings is 50% but less than 70%, the mortgage is assigned to grade "C" group; if 70% but less than 85%, grade "B" group; if 85% or over, grade "A" group. Rejected cases are assigned grades of "D" which indicates the mortgage is not acceptable for insurance.

JUDGMENT

Thus mortgages are not only classified as insurable or non-insurable, but varying degrees of excellence in insurable ones are also differentiated. The system at first glance might appear to be mechanical but it is not, for at every step in the way, the judgment of the several persons who make the necessary inspections, investigations, and analyses, is forced into use. No case can be completed until over forty feature analyses and judgments have been made. At any point, a condition may be found which contributes such a degree of hazard that a "reject" feature rating may occur, and with regard to each feature, five other degrees of risk may be distinguished and

recorded. If it is thought that insufficient weight is attached to the loan-value ratio, it can be pointed out in reply that the weighting given to this feature forces the existence of conditions which merit high ratings of the other features if the case is to qualify.

The risk ratings in the "Property," "Neighborhood," and "Relation of Property to Neighborhood" categories are very significant to the Valuator. He realizes that if these three ratings are high, he is dealing with a property whose value will approximate or reach the maximum possible, that is the fair cost of replacement. However, if one of the ratings is low, he realizes that adverse value factors are present and gives effect to the conditions observed when determining his value estimate. If two of these ratings are low, he realizes that a worse condition confronts him, while if all three are low, he knows that very poor conditions exist. It is seen that one high rating will not offset a low one but that one low rating will offset high ones, for the low rating is as the weak link in a chain. The risk ratings in the three categories named are useful in estimating future useful life, present and future desirability and utility, stability, prospective changes in the amounts of future benefits to be expected from the property, and, therefore, in the correlating of data and conclusions, and the poising of judgment and common sense at that point where a sound, well-founded value estimate crystallizes in the mind of the Valuator.

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The Influence of Special Assessments on Farm Values

By TRUE D. MORSE

MUCH criticism has been justly voiced against confiscatory governmental taxes that wholly or in part remove the value of rural land. Even more vicious than general government taxes have been the special tax burdens that to a large extent have been self-imposed. Thousands of land owners have through improvement districts of various kinds written off a substantial part of or all of their land value.

The word "improvement" suggests that in return land owners have been compensated, but the degree of compensation has not in many cases been in proportion to the cost. In some cases, poorly conceived projects have even caused physical ruin to individual properties in addition to adding a tax obligation which the land could not possibly pay. An appraiser therefore does not confront a simple task when the rural property submitted for valuation is found to be in a special tax district.

Before taking up the matter of the influence of special assessments on land values, a word should be said in regard to the approach which the appraiser should make in arriving at value.[1]

The future productive ability of the property will need to be accurately estimated, being careful not to credit the land with anticipated or possible developments that have not accrued or will not accrue without further capital expenditures. The value of the land must be based on the condition of the land as it stands at the time. This has been a very confusing point and has in the past led to some very erroneous land values being set, particularly in new improvement districts. Entirely too many appraisers and owners have been inclined to step up values on cut-over timber or undeveloped land after it has been brought into a drainage or levee district without adequate regard for the fact that the full value which is being allowed will come only after a period of expensive and speculative development has taken place.

There must be no quick conclusion to the effect that because a property is in a drainage district that it has drainage or if in a irrigation district that an adequate water supply is available. Unfortunately, too many engineering projects of this nature have failed in fully accomplishing what was proposed. There must be an accurate determination of the actual benefit to the land without regard to the tax, or bonded debt cost of the improvement. The increase in value may be substantially more or distinctly less than the cost.

IS THE BENEFIT EQUAL TO THE COST?

To assume that the benefit to the property is equal to the cost will in many cases be as misleading as following the principle that buildings, tile, and other such improvements increase the value of the property at the time of construction the full amount of their cost.

If the development is roads, parks, or schools, the influence may be only minor and indirect so far as production is concerned but have far-reaching effects on

[1]For the purpose of this article, it is assumed that values are determined by the appraisal system outlined by the Appraisal Sub-committee of the National Joint Committee on Rural Credits. See "Rural Appraising" by D. Howard Doane, in the October, 1934, issue of the *Journal of the American Institute of Real Estate Appraisers.*

the home or location value. In many cases such value factors as applied to rural property is even more important than developments that affect the productive value of the land.

Special assessments on rural real estate are usually the result of developments such as the following:

1. Drainage projects.
2. Levee districts.
3. Irrigation systems.
4. Schools, usually consolidated districts.
5. Roads.
6. General civic developments.

Special assessments as considered here include for sake of simplicity all special costs which must be paid by rural land either because it is an unavoidable obligation or because they are necessary to the use or operation of the property. This broadens the discussion to include:

1. Direct tax obligations, collected by governments.
2. Bonded debts, of governmental origin.
3. Special assessments of special districts or associations.
4. Bonded debts, created through special districts.

Some of the above may be made up of such items as the regular assessments of irrigation companies based on shares of stock in the company, the assessments being in no way a lien on the land. If, however, the land that is being appraised is to be valued on a production base that can only be realized by irrigation, the stock assessments must be treated as costs so that the land value will fully reflect the same. If the water stock is appraised separately, the land must either be valued as dry land or charged with the full rental costs of the needed water. In the later case allowance will need to be made for the fact that water shares on a rental basis may not always be available.

The foregoing brief statement is not an attempt to outline policies or principles of appraising irrigation land or other property where assessments or annual costs may not be directly levied on the land. That in itself is another subject. The matter is here referred to to illustrate and emphasize the premise that for the purpose of the following discussion, special assessments are assumed to include indirect obligations as well as direct and unavoidable land taxation.

The origin of many special assessments is with large construction costs. These costs are often set up in the form of bonded debts which are usually secured by a lien on an entire district.

While bonded debts and original construction costs are being paid, additional assessments are often required for maintenance and to pay costs of operation. This type of assessment may continue indefinitely although in some cases they are not required or are small enough to be of little consequence.

Both of the above types of levies have a very definite influence on land values. There appears, however, to be no uniform method of measuring the influence and reflecting the result in final valuation figures.

THE POLICY OF LOAN COMPANIES

Perhaps the greatest uniformity of practice has been with loan companies that have adjusted their loans on land carrying a bonded debt in one of the two following ways:

First, after arriving at the land value without regard to the bonded debt, the total unpaid bond obligation is deducted and the loan is based on the remaining value. For example, if the land is valued at $100.00 per acre and there are unpaid bonds of $25.00 per acre, the loan on a 50 per cent basis would be $37.50 per acre or one-half of $75.00.

The *second* and much more conservative approach has been to arrive at the land value without regard to the bonded debt and after figuring the amount of the loan based on the value, the amount of

the unpaid bonded debt is deducted from the amount of the loan that otherwise would be granted. For example, if the land value is set at $100.00 per acre and loans are granted on a 50 per cent basis, the loanable figure would be $50.00. From this the $25.00 unpaid bond debt would be deducted and an actual loan of $25.00 made.

The Federal Land Banks use this latter method. P. L. Gaddis, Deputy Land Bank Commissioner, states their policy in part as follows:

> . . . they (referring to appraisers) are to disregard the bonded debt in fixing their value on the land; that is, they are to assume that the land is bonded debt free and fix their values as they would outside any district or within a district having no bonded debt. When they have thus arrived at their values and determined the maximum loanable, they are to deduct therefrom the portion of the bonded debt standing against the particular property.

This latter policy clearly recognizes the bond debt as a first mortgage lien. The land value has not in such cases been adjusted but the loaning organizations have approached the matter from the viewpoint of making a second mortgage loan. In many respects the lien theory may be most nearly correct. Bonded debts are lien obligations but partake of fundamental differences that set them apart and relate them directly to land values.

The principal difference is that in most cases the taxing district so derives its authority that it can impose the bond debt on the land as a prior lien irrespective of any mortgages that may already be secured by the property. This has made it possible to relegate secure first mortgages to very insecure second or third lien positions with no opportunity for the investor to protect himself or protest. For instance, in one state after a ten year mortgage loan had been made on a farm, a drainage district was organized and later a levee district was formed, both placing debts on the land ahead of the prior mortgage. As a result, the land value was taxed away and no security was left to the original mortgagee.

The principle on which the above reasoning is based has been stated as follows:

> Taxes are definitely and permanently attached to and assessed against land, in a manner impossible of separation. They constitute a form of prior lien or annual payment deductible before profits are calculated. They are liabilities passed on with the land from owner to owner as regularly as a weed pest, an inferior soil, or a bad location. In standard appraisal practice, excess special taxes are considered deductible from appraised values, and in some cases the loan itself, before the final amount is determined. Because and in view of these facts we share the view that any tax above normal county and state assessments constitute a deductible factor, the effect or amount of which must be determined by the appraiser depending on the character of the soil, its condition, its ability to return a revenue or profit, its salability and desirability, the amount of special tax, its term, the unpaid portion, probability of increases or decreases, and the total amount of the annual tax itself.[2]

In appraising land to reach "basic value" the effect of bonded debts on land value must be fully shown. After the basic value has been determined loan companies may follow a variety of methods of arriving at the amount of loan to be granted.

It is also necessary for the appraiser to determine the amount of the levies made for maintenance, operation, and other costs not a direct part of the bonded debt and these will be incorporated into the mathematics used in reaching the productive value of the property so that they will be reflected in the final value. This will be further discussed later.

The appraiser will be greatly concerned in all physical aspects of the bonded district and its influence. Whatever elements of improvement to the property or to the community as a whole have resulted will be fully reflected. Both the individual

[2] As taken from a statement of the Doane Agricultural Service in an appraisal case in 1926.

property and the location and home value aspects of the land are normally affected and all of the influences must be accurately judged and weighted.

A word of caution should be injected to warn against anticipated or probable future benefits or developments. The property must always be appraised as it stands on the date of inspection.

COMPUTING THE UNPAID BONDED DEBT

The correct manner of arriving at the amount of a bonded debt remaining unpaid at the time of the appraisal is not well understood. The following appears to be a sound and practical procedure.

If the district is meeting its payments regularly and the proportion of debt obligation to the value of the land in the district is small, it is safe to assume that the unpaid portion of the benefits necessary to retire the bond issue is the amount of debt on the land. This must be only the principal obligation plus any overhead costs that are not figured as interest. Many districts show all of these in one total figure. Interest is not a principal item and must be figured out before the final sum is set up to show the balance due on the debt.

The process of deleting the interest from a total debt figure is simply one of figuring the present worth of the amount due at the later date. It is the value now of the total sum of money coming due over the period required to retire the bonded debt. We assume, of course, that the bond issue draws interest. For practical appraisal purposes, it is the sum of money that would be accepted at the time of valuation in full settlement of the bonded debt obligation of the particular tract of land. (It is assumed in the foregoing discussion that the bonded debt has been segregated to individual tract of land and can in such cases be paid and discharged at any time. If this is not true, the procedure should be modified to meet the circumstances of the particular case.)

In recent years, the problem has not been as simple as the foregoing would indicate because of the large number of districts that have either defaulted in their bond obligations or have found their bonded indebtedness such a high proportion of the deflated land value that their ability to meet payments promptly and in full has often been in doubt. This procedure can only be applied to districts that are clearly regarded as in sound financial condition and where there is no question as to their ability to pay their bond obligations.

If there is any doubt of the ability of any land in the district to pay its bonded debt in full, it will be necessary to determine the maximum liability of the tract of land being appraised and either deduct all of this as a direct obligation or deduct the proportion that is a direct obligation and set up the balance as a contingent liability. For instance, in some districts, levies can be made up to the total amount of the assessed benefits but bonds are sold only for a portion of the total. Thus the direct obligation of each property is represented by the amount of the bond issue but the property value in many cases is properly reduced the maximum amount of the assessed benefit. This is necessary as the land will have to help meet the portion of the total bond debt not paid by the land in default. In some cases, this can exceed the original portion of the bond debt by 10 to 25 per cent.

It is necessary to give careful consideration to the statutes under which districts are organized in order that the total liability may be accurately determined.

The foregoing has been in regard to special tax levies or that portion of special assessments which are necessary to retire

bonded debts. It is assumed that in each case such bonded debts have been so levied that the obligation of individual tracts of land can be determined.

We now come to a discussion of those special taxes or the portion of assessments which are not for the purpose of retiring the principal portion of bonded debts. These levies are normally made for purposes such as the following:

1. Construction costs.
2. Payment of interest on bonded debts.
3. Maintenance.
4. Current operating costs other than administration.
5. Administration and overhead.

These items are usually paid in the form of current assessments. They may regularly occur in rather uniform annual charges, possibly irregular annual charges, or may be levied only periodically when maintenance, reconstruction, repairs, or other special costs must be met. Regardless of the manner in which they are paid, the frequency or amount of the assessments, the same principle applies in every case in so far as reflecting them in the value of the land subject to such payments.

It has previously been stated that there apparently has been no uniform practice followed by appraisers in dealing with the question of bond debt obligations. The lack of recognition of any principle for dealing with current assessments such as above outlined, is even more apparent. It is clear that in many cases appraisers have totally disregarded these costs in setting land values and in many other cases have made only hap-hazard and often inadequate adjustments.

The adjusted value can be reached by the very simple procedure of entering the average annual amount of these current special assessments as one of the expense items to be deducted from gross income in arriving at the "earnings" portion of the value of the land.

Treated thus, they have the same influence on land values as general taxes or any regularly occurring fixed expense. The extent of the depreciation of the land value is in direct proportion to the amount of the special assessment reflected on the basis of the capitalization rate in use. For example, if a capitalization rate of 5 per cent is used, $1.00 of annual special assessments per acre will reduce land values $20.00 per acre. If a 6 per cent rate is used, the reduction is $16.66 per acre.

The accuracy of the result obviously depends on a number of factors, chief among them being the correct determination of the amount of the average special assessment to be charged to the land. A small error is this figure will be magnified into an error of dominant importance in the final product. In the first example above a fifty cents per acre error in the annual charge estimate will cause an error in the depreciation of the land value of $10.00 per acre.

It is often difficult to arrive at the accurate amount of the annual special assessment rate to charge the land. In some cases the rate is quite well-established and presumably will be indefinitely assessed. These obviously present no problems. There are, however, a variety of situations such as the following where the solution appears to be somewhat along the line indicated.

ONE TYPE OF CASE

In some cases there are no assessments at the time of inspection or levies are made only at periodic intervals or the land is in a district or municipality that can at any time without additional authority levy special assessments.

In such instances, it becomes a problem of determining the probable frequency and the amount of payments to which the property will be subjected. The history of the

property and the history of the district in which it is located is the best guide to the solution.

A practical example of such a case is a drainage district that has paid its bonded debt but has made no further assessments, although it has retained the right to do so for purposes of maintenance, repairs, and administration. It is necessary to determine the extent to which such districts have been neglected and the probable cost of current maintenance and administration, and to charge the property with an annual rate sufficient to cover these items.

Many serious errors have been committed, particularly in recent years when no assessments were being made at the expense of neglecting maintenance and repairs. The fact was overlooked that these costs would have to be eventually paid, and in many cases at a greater cost than if they had been met currently as the need occurred.

A SECOND TYPE OF CASE

Heavy assessments may be paid at the time of inspection but within one or more years will be discontinued or reduced to a substantially lower level.

Unless such payments can be accurately reduced to a figure that will reflect the total cost spread over an extended period of years it will perhaps be most accurate to deduct the heavy current assessments as one item, and make a further adjustment for the lower rate of levy that may continue indefinitely.

If this procedure is used, the total of the heavy assessments must be figured back to a "present worth" basis, the same as suggested for arriving at the unpaid portion of a bonded debt. Again a practical figure can usually be obtained from the district or taxing authority by using the amount that will at the time be accepted in full settlement of the remaining assessments. If this is lower than the calculated "present worth" figure the latter should be used as the property should normally not be charged with a deduction higher than the figure at which the obligation can be paid at the time of appraising.

A THIRD TYPE

The converse of the above may be true. Current assessments may be small with distinctly larger assessments to follow. In this case the annual charge will reflect primarily the larger figure unless the large assessments are known to be only for a very few years. In the latter event, they can be handled as a total deduction on a "present worth" basis or spread through a period of years.

A FOURTH TYPE

Special assessments may include both the payment of a bond debt and current maintenance and operating costs. The most accurate method in such case is to separate the assessment for current costs and adjust for same as previously outlined, and make a further deduction for the assessment applying to the bonded debt.

Before summarizing, a word of caution will again be in order. The history of many improvement districts has not been one of relief from special taxation after first costs have been paid and yet many, perhaps most appraisals, have reflected only the bonded debt or original construction costs. Special levies in many cases continue indefinitely and land values are definitely lowered as a result. Accurate appraisers will not overlook this important fact.

Appraisers of rural land are being constantly cautioned against the sin of forecasting and yet it may seem to some, that the above methods can only be applied with a liberal amount of prophesy, but

this is not the case. If all the facts are developed, particularly in regard to the district and its history, the amount of prophesies or guesses that will need to be made will be indeed few. Rather than branching out into unguided forecasting, the appraiser will do well to adhere rather closely to the special costs previously paid by the property. Lower costs may or may not be the rule later.

SUMMARY

We have briefly suggested the following as the principles to apply in determining the influence of special assessments on farm values.

1. In standard appraisal practice, special taxes are considered deductable from appraised values before the final value is determined. Any assessments above normal county and state taxes constitute a deductable factor, the effect or amount of which must be determined by the appraiser.

2. Adjustment for bonded debts can best be made by deducting the "present worth" of the bond obligation. Present worth as here used means the sum of money that would at the time be accepted in full settlement of the debt.

3. Land values in districts that are defaulting or are financially insecure must be further adjusted down to show the additional liability.

4. Special assessments not attached directly to individual tracts of land have the same influence on land values as general taxes or any regularly occurring expense. The extent of the depreciation as related to the amount of the annual assessment, will depend on the rate of capitalization used.

All special assessments definitely lower farm land values. Their presence materially complicates the already difficult task of accurately determining values but their influence is measurable. It requires trained, qualified appraisers of analytical ability and mature experience to apply the principles and make the analysis necessary to reach dependable value figures, particularly where special assessments are involved.

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The True Value of Real Estate

By HENRY E. REED

THIS country is beginning to recognize that the value of real estate is the capitalization, at the appropriate rate of interest, of its estimated annual net income in money, or equivalent amenities, for the term for which that income may be expected to continue. Responding to the declared policy of the National Association of Real Estate Boards, there is developing a formidable body of opinion that assessing officers should consider income, or use-value, of property as one of the major factors in arriving at a fair assessment for tax purposes.[1] If this desirable reform is to be furthered in the court of public opinion, they who own, deal in, and appraise real estate manifestly cannot have one value in the back of their heads for purposes of appraisal or sale and another value up their sleeves for purposes of taxation.

Past ideas of value held by owners have tended to uphold Henry George's theory of the value of land. One of his arguments for the single tax was his dream of fortunes to be made from land ownership. One might sit down and smoke his pipe, loaf around like a lazy Mexican, go up in a balloon, or burrow into the ground like a squirrel. Then, presto! Without doing a stroke of work, without adding an iota to the wealth of the community, the land drone would be rich in ten years.[2] Real estate owners resisted George's single tax on land values as confiscatory and unjust, but did not up-root it. Somehow, they seemed to fall in with the single tax champion's dictum that land ownership was a magic carpet upon which they could ride to fortune. All one had to do was to buy land and wait for the profits which were sure to come, and recurrent booms imparted a semblance of truth to the theory.

Increased tax burdens, among other things, have everywhere dispelled this illusion. There never has been any value in land other than that arising from its income or use. But land owners as a class have not appreciated this fact until recent years. All the while government has been taxing real estate on a false basis. The land is worth so much by comparison, or cost; the value of the building is reproduction cost less accrued depreciation. So has run the theory. Upon the total of two sums representing land and building, easily identifiable as a form of cost rather than of value, the tax levy has been made from year to year. Court rulings that in valuation there can be no separation (of parts of the whole) without destruction,[3] and that the cost of a thing is not the test of its value,[4] have made no impress upon assessment methods.

The swing to the right for valuations based upon net income, or use-value, is a healthy sign. It was long overdue. Appraisers owe it their hearty support. Many of them are formulating methods of procedure out of which much good grain will be threshed. Some, however, are straying afield in their techniques. Elements are being introduced into the techniques, which, to say the least, are bewildering and disconcerting. Unless some current

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Mr. Reed's frank expression of his views on the appraisal processes is refreshing whether or not we wholly agree with him. We understand that everything comes *big* in the Pacific Northwest, including appraisal problems. They are doing a lot of constructive work up there, and we expect to learn more about their problems and practice in a subsequent article by another authority.—Ed.

[1]At annual business meetings Washington, D. C., January, 1934, and Houston, Texas, January, 1935.

[2]Henry George, *Progress and Poverty*, Book 5, chapter 2.

[3]Washburn vs. Washburn Waterworks Company, 120 (Wisconsin) 575.

[4]Adams Express Company vs. Ohio State Auditor, 166 (U. S.) 185.

trends are arrested, and a direct, simple, and sound course is charted, appraisers are likely to be bogged in a mire, and be misunderstood alike by themselves and the people whom they serve. I shall discuss these matters in a fair spirit, without contention or criticism, in the thought that I may be able to make a constructive contribution to the subject of valuation.

Among the practices which I regard as being at variance with the true application of the principle of income capitalization are these:

1. Division of net income between land and building, and the treatment of one or the other of the amounts as a residual in order to fix capital value.
2. Summation values, arrived at directly by physical calculations, or indirectly by capitalizing separately the net income of land and building.
3. Forecasting the so-called remaining economic life of a building in years, as a separate proposition, in disregard of the continuing earning expectancy of the entity composed of land and building.
4. Guessing at the rate of interest used in capitalizing net income, instead of ascertaining the justified rate by investigation and applying it intelligently.
5. Confusion of perpetual and terminable estates.
6. Inclusion in appraisal reports of immaterial and redundant text about postoffice stamp sales, bank clearings, and so on, which make a glowing picture in a booster club pamphlet, but are out of place in an appraisal report because they have no bearing on value.
7. Over-emphasis of certain elements entering into the valuation, like rents and taxes, as if they were fixed and unalterable for indefinite time, when it is a known fact that both items are subject to serious fluctuations.
8. Use of long and short rules for interior lots and scales of influence for corner lots.
9. Claims that the appraisal of real estate is an exact science.
10. Speculations about highest and best use, when the true question is whether or not the property, as it stands, is being put to its best, i.e., most profitable use.

It would be interesting to discuss the various points in detail, but limitation of space forbids. Several are included in the capitalization of net income, or the determination of the price earnings ratio, to which I will later refer. As to No. 3, I am not to be understood as contending that buildings can be ignored, or even lightly passed over. On the contrary, it is of the utmost importance that the age and condition of the buildings be taken into account. There are involved here vital elements of value. As concerns the building, there are to be considered the cost of repairs and remodelling, and the influence of obsolescence, whatever may cause it.

As to the land, there arise questions of earning power and method of valuation after the end of the estimated net income for the entity. My point is that it is the estimated net income of the entity for its life that is to be appraised, and not the economic or other life in years of only one factor—the building. Neither the land nor the building valued by summation, cost, or as a residual, means anything. The entity means everything. It is clear that this rule must apply with equal force to freehold and leasehold estates.

APPRAISAL NOT AN EXACT SCIENCE

My ninth point is so self evident as to require little argument. Assertions about "scientific appraisals" are harmful to the profession. They are absurd claims. Appraisal is not an exact science, and any claim for it other than that it is the exercise of a calm and informed judgment, based upon experience and training, cannot be supported. A well-known authority[5] summarizes the opinion of a New York jurist to the effect that "in the final analysis appraisal is but the expression of opinion by a man whose qualifications must be predicated upon experience, knowledge, and a continuing study of real estate problems."

[5]A. N. Gitterman, "New Influence on New York City Values," to National Tax Association, Columbus, Ohio, September 13, 1932.

Technique serves to remove only the most glaringly inaccurate elements involved in pure guessing, and it is not true that great accuracy can be secured in valuation work.[6] The English authorities stress training and experience. Valuation cannot be taught by any number of books, however exhaustive they may be.[7] Knowledge will not serve until it has been amalgamated with experience.[8] Reliable work is not possible until the valuer can draw exact information from all the particulars before him.[9]

The appraiser is a human being, subject to errors of judgment, even when he is at his best. Once an appraiser so acts upon the problem before him that he determines a valuation, that is an appraisal, whether it be good, indifferent, or bad. The appraiser may be competent but careless; he may be incompetent but careful; he may have wide knowledge and practice or little of either; his technique may conform to that of the general run of men in the business, or it may be so peculiar to himself as to cause his fellows to regard him as an oddity; the valuation may be sound or unsound, but it is an appraisal by one who represents himself to be an appraiser.

THE BRITISH SYSTEM

In contrast with our complicated American techniques is the direct and simple British system of valuing real estate on the basis of its net annuity, or price earnings ratio. Years ago, before the appearance of Skrimshire, Webb, and other British writers on valuation, and before there were any American authorities, an appraiser[10] of twenty-seven years' experience made some very plain statements to a Parliamentary committee appointed to investigate town holdings, which correspond to our American income property. He laid down four fundamentals which are as sound now as they were the day he uttered them. His points were:

First:—The capital value of a town holding is solely the net annuity, or net annual income it will yield, and the probabilities which affect its continuance, multiplied by the number of years' purchase, at a rate of interest adopted by the appraiser. The values of land and building cannot be separated, as they comprise an entity, nor can the net income be so divided that one part may be attributed to land and the other part to building.

Second:—Cost must be disregarded even if the building be new and suitable.

Third:—Buildings do not impart value to land. They are blended into an entity, the capital value of which can be fixed only by multiplying the net income by the number of years' purchase.

Fourth:—The value of vacant land is exactly what some one will pay for it. The best that an appraiser can do is to estimate its value. Six competent appraisers will make as many estimates, and the differences between them may be from ten to thirty per cent.

Years' purchase is the number of times the net annual income may be taken to represent the capital value of that income, having regard to the time it will endure, the rate of interest required on the investment, and, in cases where a sinking fund is involved, the rate of interest on reinvestment.[11] It follows, as a matter of course, that sinking fund for the recovery of capital, whether at the single or the dual rate in compound interest, may be used only in connection with terminable estates, such as leases.

In perpetuities no provision for sinking fund is required. Their capital value is calculated by simple interest. A perpetuity at 5 per cent is 20 years' purchase, or a price earnings ratio of 20; a lease for 25 years at 6 per cent on investment and the same rate for return of capital is 12.783 years' purchase, or price earnings ratio; a lease for 25 years at 6

[6]Frederick M. Babcock, *The Valuation of Real Estate* (1932 edition) page 1.
[7]C. A. Webb, "Valuation of Real Property," page 1.
[8]Sydney A. Smith, "The Valuation of Land and Houses" (Curtiss) page 90.
[9]Samuel Skrimshire, "Valuations," page 90.
[10]Testimony of Joseph Potts to the Select Committee, June 27, 1890.
[11]Skrimshire, page 11.

per cent on investment and 4 per cent for return of capital is 11.9 years' purchase, or price earnings ratio.

Stripped of verbiage, the British method merely requires that the appraiser, in the exercise of the average ability and knowledge of his profession, shall estimate the fair annual net income for a property, and how long the flow of that income can be reasonably expected to continue. He next adopts a rate of interest which experience, not guesswork, has taught him is applicable, taking into consideration the property, the money supply, competition of other forms of investment, and other pertinent factors. He then multiplies the net income by the number of years' purchase determined by the interest rate, and the product is the capital value. This figure is final if the property is in condition to earn the estimated net income; if it is not, a deduction is made for the amount of capital outlay necessary to condition it. Neither cost nor value of land or building, combined or separated, enters into the valuation in any form whatever. The building is indeed carefully examined, not however, to ascertain its original cost, nor its reproduction cost less depreciation and obsolescence, nor its remaining economic life, nor its value as a separate part of the entity, but solely to determine whether the entity will earn the estimated net income.

SAMPLE APPRAISALS

There is room for a few sample appraisals. These follow:

EXAMPLE 1

Freehold estate, fairly well-secured, but building in disrepair because of a negligent tenant.

Estimated annual net income	$ 1,000.00
Valuation in perpetuity at 8 per cent—12½ years' purchase	12,500.00
Deduct outlay for repairs necessary to condition the building	3,500.00
Capital value in perpetuity	$ 9,000.00

EXAMPLE 2

Freehold leased for 25 years at $1,000.00 per year, net, which will increase to $2,000.00 when the lease expires. Because 25 years are a long time to look ahead, and the condition of the building then is an uncertain factor, the discount rate for the reversion to the perpetuity is increased.

Present value of $1,000.00 per year for 25 years at 5 per cent—14.094 years' purchase	$14,010.00
Present value of the reversion to a perpetuity of $2,000.00 per year after 25 years at 8 per cent—1.825 years' purchase	3,650.00
Total value	$17,660.00

EXAMPLE 3

Purchase of a leasehold with 25 years to run, annual net income $1,000.00; the reversion for simplification not valued. Interest on investment and for recovery of capital figured at the same rate.

Present value of $1,000.00 per year for 25 years at 6 per cent—12.783 years' purchase	$12,783.00
Annual net income from leasehold	1,000.00
Interest on investment—6 per cent on $12,783.00	766.98
Balance for recovery of investment	$ 233.02

If the sinking fund in Example 3 be invested annually at 6 per cent it will accumulate at the end of 25 years to $12,783.00, thus returning the investor his capital, while at the same time his investment has yielded him 6 per cent per annum. The $12,783.00 could be reinvested at the end of 25 years at 6 per cent to produce an annual net income in perpetuity, or in another terminable estate, which if bought at the same number of years' purchase, would provide for the accumulation of the principal at the end of the second term. In other words, the annual net income of $1,000.00 for 25 years in the example here given is equivalent to a net income in perpetuity of $766.98, or 6 per cent on $12,783.00, the amount of the original investment.

The theory which supports the single rate for interest on investment and for return of capital in terminable estates is

the same as that used in the computation of bond value tables, which assumes that the proceeds of the coupons as they mature are reinvested at the rate of income which the bonds yield at the purchase price. Thus in the case of a 6 per cent $100 bond, maturing in 45 years purchased on an 8 per cent basis, interest payable semi-annually:

Present value of $100 in 90 periods at 4 per cent—.029308×100	$ 2,9308
Present value of $3 per period for 90 periods at 4 per cent—24.2672×$3	72.8016
Value of bond per bond table	$75.7324

The single rate table is frequently objected to on the ground that capital cannot be recovered at the same rate as interest on the investment. To overcome this, a dual rate of say 6 per cent for interest and 3 per cent for sinking fund is favored by some. By this method the leasehold above referred to would be valued as follows:

Present value of $1,000 per annum on the 6-3 rate—11.43798 years' purchase	$11,437.98

The annual income is $1,000. Deducting from this 6 per cent on $11,437.98, or $686.28, leaves $313.72 for sinking fund, which invested annually at 3 per cent, compounds to $11,437.98 in 25 years.

The accumulation of a sinking fund causes appraisers more concern than it deserves. Income taxes being what they are, it is impossible to accumulate a sinking fund at any rate, either on the single or the dual table. Take for illustration, such taxes levied in 1935 upon a resident of Oregon, a married man, with two dependents, having a net income of $10,000.00 a year from a lease bought on 50 years' purchase at 7 per cent, and no other income. Value of the lease at the time of purchase 10,000 x 13.80075, or $138,007.50:

Annual net income		$10,000.00
Federal normal and surtax after allowance for exemptions (1932 act)	$416.00	
State of Oregon income tax at graduated rates after allowance for exemptions (1933 act)	403.00	819.00
Net income less above taxes		$ 9,181.00

The income taxes are taken out of the taxable income, regardless of any bookkeeping allocation. The result is that the investor does not have $10,000 a year on his investment of $138,007.50, but $9,181, or about 6.65 per cent. To accumulate to $138,007.50 in 50 years, $339.48 must be invested annually at 7 per cent. This amount deducted from $9,181.00 leaves $8,841.52, or slightly over 6.4 per cent interest on investment.

Professor Burroughs, with a fine grasp of the valuation problem, hit the nail on the head in a recent article.[12] Arguing correctly that the rate return which security buyers insist upon receiving for given types of investment is measured by the price earnings ratio, he holds that it is the task of the appraiser to estimate a normal price earnings ratio. Thus, says he, "a discount rate of 10 per cent means a price earnings ratio for perpetuity of 10," which is another way of saying 10 years' purchase of the estimated annual net income. To quote further:

> It is not necessary to know that this price earnings ratio is the result of a given amount of discount for the time factor, i.e., pure interest, and the other part, the result of price adjustment based on risk. It is only necessary to know that the typical,—the probable high and the probable low,—price earnings ratio for given types of risk is actually such and such. *This is a market phenomenon. It is as truly applicable to real estate as to stocks and bonds.* (Italics mine.)

WHAT HAPPENS IN A SALE?

As I construe Professor Burroughs, he puts himself in the position of an intending purchaser of a parcel of improved real estate, the annual net income of which is

[12] John Burroughs, "The Safe Risk Rate Formula," in *The Journal of the American Institute of Real Estate Appraisers*, October, 1934, Vol. 111, No. 1.

estimated at $10,000.00. Let us stand near and witness the negotiations between buyer and seller. The seller is striving to get all he can; the buyer to pay no more than he must. The seller has named $125,000.00, which is the value in perpetuity of $10,000.00 a year at 8 per cent, or 12½ years' purchase, or price earnings ratio of 12½. The buyer wants assured income on his investment and security for his capital. He is asking himself these questions: Is the income stable and how long will it continue at the present level? If 20 years, will there then arise a higher utility accompanied by increased land value, prospect for sale at a profit, or opportunity for ground lease at a good rent? Will the general district in which the property is situated continue at its present level of importance, or will it become more or less important? Is a price earnings ratio of 12½ too much to pay? Where else can I invest $125,000.00 and be sure of my capital and a satisfactory return? After answering all these questions in his own way, the buyer concludes that $100,000.00 is a sufficient price, or 10 years' purchase of the annual net income, a price earnings ratio of 10. Here a price has been named and an offer made. It is the practical operation of the haggle of the market. In the end, both parties make concessions and the sale is closed at $112,500.00, which is the present value of $10,000.00 per year in perpetuity at about 8.8 per cent, or years' purchase and price earnings ratio of 11.25.

The buyer then enters into possession of the property, convinced in his own mind that his capital is secure and his income assured. He has had full opportunity to satisfy himself on these vital points, and if he has failed the fault is his. From that moment the property is his in perpetuity to hold, lease, sell, or do with it as he pleases, provided he does not violate law. All income and profits will be his; likewise all losses. If there are to be future capital outlays for any purpose, he must, out of the income he receives, accumulate a fund to meet them, which will reduce his percentage of net income. At the close of each accounting period he will cast up so much income and so much outgo. When one amount is subtracted from the other he will have left a variable remainder, which is called the net income. This variable remainder may be greatly more than the $10,000 which he purchased, in which event he will feel fortunate, or it may be less, which will put him on notice that something, temporary or permanent in character, has missed fire. Disregarding factors beyond the control of the owner, such as increased wages or taxes, the question of whether or not the variable remainder is a profit or a deficit will depend in large degree upon management. Without competent management no property can succeed. If the owner counts upon the continuance of the economic conditions and prices prevailing when he made the investment, skins the property and puts nothing back into it, he is likely to wake up some fine morning and ask what is the matter with real estate. If, on the other hand, he watches his real estate investment as he would a bond or a stock, he will, barring the unforeseen, stand a good chance to weather any storm.

Kniskern

Recent American writers are confusing in the techniques which they have undertaken to expound. Mr. Kniskern positively opposes the separation of land value and building value and land income and building income,[13] and condemns as "fallacious and conducive to errors," some "present day thought that attempts to separate portions of net income to land and

[13] P. W. Kniskern, *Real Estate Appraisal and Valuation*, page 436.

buildings, capitalizing that assigned to land at one rate and that assigned to building at another rate." He states the same principle in another place,[14] but qualifies it. Here he says the discussion, analysis, and study of an improved property are simplified and clarified if land and buildings are treated separately and then the two in combination. This he proceeds by example to do. A property yielding an annual net income of $42,000.00 is capitalized in perpetuity at 10 per cent and appraised at $420,000.00. Applying discussion, analysis, and study, Mr. Kniskern says his judgment tells him that the land is worth .$150,000.00, and that the building at 50 cents per cubic foot is worth $270,000.00; total $420,000.00. The first valuation is a correct application of the price earnings ratio; the second is a cost or summation value. Query: If judgment had fixed the land worth at $300,000.00 would the building worth have been $120,000.00? Or if the building was worth 60 cents a cubic foot, or $324,000.00, would the land worth have been $96,-000.00? Can any answer to the two questions make an appraisal so arrived at conform and agree with the income value of $420,000.00 previously found, as Mr. Kniskern says?

SOMERVILLE

Mr. Somerville's appraisal of a Minneapolis apartment house[15] indulges in speculations about land value. After valuing the property on the basis of net income, using 6 per cent for land and 9 per cent for building; with a reversion to land value after twenty years, he fixes the present land value, not taking into account expected increases, at $15,000.00. This, he says, is "purely an opinion value." And so it was, without even a comparative sale to back it up. The estimate might just as well be $10,000.00 or $20,000.00. As a final effort, Mr. Somerville looks forward twenty years and sees as the highest and best use of the land a multi-story apartment hotel, or absorption into adjoining property for commercial use. "In either event," he concludes, "it is my opinion that the then value of the site will be approximately $25,000.00." Nothing to support that statement, either.

BABCOCK

In four worked examples by what Mr. Babcock calls the declining annuity method,[16] the land value is made residual in one case and the building value in three cases. In the three cases the land is arbitrarily given a value upon which it is estimated to earn 7 per cent net. The balance of the net income is allocated to the building and is treated as a declining annuity for the remaining useful life of the building. In the case where the land value is residual the process is reversed. The replacement cost of the building is first estimated at $25,000.00. The declining annuity which at 10 per cent has a present value is calculated and deducted from the predicted net annual earnings. This leaves the residual land return which, capitalized at 7 per cent, gives the residual land value. The array of statistics which Mr. Babcock presents of yearly building return, interest on building, return of building capital and unrecaptured building investment, presents some startling figures when closely analyzed. The decrease in the yearly building return amounts to $45.54 in the fifth year, $54.09 in the tenth year, $64.24 in the fifteenth year, $76.30 in the twentieth year, and $90.62 in the twenty-fifth year. The yearly percentage of acceleration decrease

[14] Same, page 244.

[15] Appraisal Report, Courtney Apartment Property, Minneapolis, Minn., published by National Association of Real Estate Boards, 1930.

[16] Frederick M. Babcock, "Depreciation Allowances" in *The Journal of The American Institute of Real Estate Appraisers*, July, 1934, Vol. 2, No. 4.

follows the relatively close level of about 3.5 per cent per year. But when we consider the percentages by which the building return is annually decreased we find that it runs along fairly even for quite a while and then makes a series of rapid jumps. It is 3.09 per cent in the fifth year, 4.4 per cent in the tenth year, 6.8 per cent in the fifteenth year, 12.9 per cent in the twentieth year, 18.6 per cent in the twenty-second year, 23.7 per cent in the twenty-third year, 32.2 per cent in the twenty-fourth year, and 49 per cent in the twenty-fifth year. Building returns do not behave in this fashion.

WORTH OF VACANT LAND

A parcel of vacant land is worth just what some one will pay for it, and no more. Valuations of this class of property are mere estimates. There will be as many different estimates as there are appraisers and the spread of their figures will be important. A Portland experience of 1928 is very much in point. Four Realtors and two property managers who knew the city, were appointed to value business land in 100x100 feet divisions as if each one was vacant, but all surrounding land improved. Estimates of value were made for 214 sites. Space does not permit a detailed discussion of this experience, so I will refer briefly to the outcome on the twenty sites within the high valued loop. The differences between high and low in these cases were: 10 to 19 per cent 7 times; 20 to 24 per cent 4 times; 25 per cent and 33⅓ per cent 3 times, each; 30.77, 31.82, and 36.36 per cent 1 time each. The average difference through the list of properties was 22.75 per cent.

THE ESSENTIAL NEED

As I view the appraisal business, the essential need of the profession is to plant its feet squarely on the ground and keep them there. If we are to commit ourselves to capitalization of net income as the basis of valuation, we should follow that line without qualification. We should not be drawn from the straight path by residuals, summations in any form, long and short rules, and like abstractions. Calculations for depreciation are another fault. Mr. Babcock truly says that annual allowances or "write-offs" for this purpose are a bookkeeping function, and that the appraiser is not concerned with them.[17] He says, also, that "in the appraisal of real estate properties, the depreciation, obsolesence, and building-life problem is largely one of predicting the remaining periods during which the buildings may be expected to produce earnings or amenities,"[18] If he had said "entity" instead of "buildings," he would have been in accord with the principle of income capitalization.

Obsolescence may be due to many causes, including changes in the art, the shifting of business centers, loss of trade, inadequacy, and laws regulating or forbidding the particular use of property.[19] It is the duty of the appraiser to weigh carefully obsolescence where it has occurred, and, to the extent of his ability, to forecast future developments of it.

The sooner our profession discards many of the current pet theories, the sooner we shall speak the language of our customers. The price earnings ratio, years' purchase, or income capitalization, call it what one will, is what is in the mind of the prudent investor. It is terminology that he understands, whether he is buying stocks, bonds, or real estate.

THE APPRAISER'S QUALIFICATIONS

The jurist quoted by Mr. Gitterman[20] did not say anything new, but his ap-

[17] Frederick M. Babcock, *The Valuation of Real Estate*, (1932 edition, page 401).
[18] Same.
[19] Burnet vs. Niagara Falls Brewing Co., 282 (U. S.) 654.
[20] See Note 5.

praisal of the appraiser was correct. Knowledge, experience, and continuing study are everything. The first qualification of an appraiser, assuming that he has a consistent technique, is thorough knowledge of his field of labor. If it be a city, he should be familiar with its origin, development, geographical location, transportation, physical structure, extent and wealth of supporting territory, shifts of population; in fact, with every pertinent factor, and the reasons for these factors.

Every city has its problems. As an illustration, Portland is divided into two sections by a deep, navigable river, which is crossed by eight vehicle and pedestrian bridges. The west side, comprising about one-third of the area, holds, as in the case of Manhattan borough of New York City, the bulk of the administration, office buildings, and big business. Like Manhattan, its resident population has been declining aggregately and relatively for twenty-five years, until it now has about 21 per cent of the city's population. No appraisal of west side property can safely ignore this shift.

Ability to select the appropriate rate of interest for capitalization is of prime importance. Portland owners are 6-per-cent-minded, whether the property be a gas station, an apartment house, an office building, or what not, and valuers generally are in accord. Capitalization in Oregon has tended to follow the legal rate of interest, which is by no means conclusive as a basis for capitalizing income. Since 1898 the rate has been 6 per cent, with a 10 per cent maximum on contracts. In other times the respective rates were 8 and 10 per cent and 10 and 12 per cent. Prior to 1862, the rate was 10 per cent with no limit on contract rates, except that interest could not be compounded oftener than one a year.[21] Old time mortgages bore interest at 2 per cent a month, and even at higher rates.

Summing up, there is no limit to the fund of information which the appraiser, through training, experience and continued study, should acquire of his field. The better equipped he be for the practice of his profession, the better will he be able to render real estate a real service in establishing its true value and in dispelling the misconceptions which have so long surrounded it, and made it the special prey of confiscatory taxation.

[21]State law effective May 1, 1854.

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Other Factors Affecting Market Price

By GEORGE L. SCHMUTZ, M. A. I. AND LORING O. MCCORMICK

LOCATION may be considered as the geographic position of a portion of the Earth's surface in respect to other geographic locations; or, it may be considered as *a geographic location in respect to human activities.* The latter concept is the one with which the appraiser is interested for the simple reason that the exchange value of any given portion of the Earth's surface depends entirely upon the relationship of the physical location to all human pursuits, endeavors, and desires. Viewed in this fundamental light, Location can best be defined as—"the relationship existing between a geographical area and the sum total of environing and modifying influences arising by virtue of human activities."

Under the above definition we shall obviously have to consider what activates human kind, and we find that the *saving of time and effort* is the major factor to be considered for the reason that it reduces the cost of the users of land. By this process of reasoning, the measure of the value of a geographic area is the amount of time and energy saved in the use of the area in question, as compared with the use of other areas. The relative degree of the ability to conserve time and effort is generally designated as *Accessibility,* and the degree of Accessibility to the sum total of human activities determines the degree of value possessed by the site.

ACCESSIBILITY AS A FACTOR OF VALUE

This is viewing the matter as though accessibility were the sole determining factor in the valuation of lands. In the ultimate sense, this is true. The opening up of new regions by the building of railroads, highways, maritime transportation, interurban lines, automobiles, aeroplanes, etc., increases accessibility while lessening the expenditure of energy necessary to reach them, and thereby lessening the cost of their use. Thus, the most important factor in the estimation of the value of any form of land is its Accessibility—both present and future, in respect to present and future activities, which may change in quantity and quality—due to the redistribution and growth of population.

The greatest point of accessibility in any city changes as the city's activities and population change. By doubling its population a city of 100,000 people might have to change its streets and transportation lines which enter the commercial district of the city, and thus the point of greatest Accessibility may entirely change —according to the redistribution occassioned by the population growth. In this respect, the change in transportation and hence in Accessibility is occasioned by the growth of the city—in other words, dependent upon human activities. The point of greatest Accessibility changes for the reason that with the redistribution of population and changes in transportation, the new location can conserve a greater amount of time and energy than the old.

ACCESSIBILITY CHANGES AT A DECREASING RATE

Generally speaking, it is noticeable that the larger a city grows—the less is the movement of the Point of Greatest Accessibility in proportion to the population increases. This is particularly true if there are no natural barriers to the ex-

pansion of the city—such as lakes, rivers, precipitous mountains, etc. Thus, the growth of a city from 200,000 to 400,000 people might move the point of greatest Accessibility a distance of one-half mile; from 400,000 to 800,000, the point may move only one quarter mile; and from 800,000 to 1,600,000—it may move but a few hundred feet. The reason for this is fairly clear. The massing of large investments by the creation of costly structures, and transportation systems, and the growth of property values, renders it less expensive to modify existing transportation facilities than to create new ones. In this respect, the massing of large aggregates of capital at or near a particular point might serve to hold business at that point, thereby causing a modification of transportation facilities even though the point of greatest Accessibility has passed beyond.

There are numerous occasions of record where the owners of large aggregates of capital in a small area have subsidized transportation facilities in order to increase Accessibility—rather than to allow the creation of new facilities at a point of greater natural Accessibility, which would increase the value of the newer district at the expense of the old. We thus see large aggregates of capital as exerting a tractive force tending to hold the point of greatest accessibility within a small area.

COMPARISON OF RESIDENTIAL DISTRICTS

In the consideration of residential districts, the comparison most often made is that of the type and age of structures and general surroundings. While extremely important in estimating the market price of property, this general comparison is nevertheless modified by other considerations. Given an equally desirable type of construction, age, and surroundings, a district enjoying a five-cent car fare will be more valuable than one where the fare is more. In districts which are identical in most all respects, that district having the most frequent car service would have the greatest desirability, all other conditions being equal. We thus see three major factors as the determinants of price and desirability in residential districts as follows:

1. The type and age of structures and their surroundings.
2. The monetary cost of getting to and from the district, and place of employment, and
3. The element of time.

TIME AS AN ELEMENT OF ACCESSIBILITY

Generally speaking, in two districts directly comparable, as far as class of improvements and social desirability is concerned, that district closest to place of employment, measured in time, would be the more valuable. Also, in the main, Accessibility in residential districts is measured in the same manner as Accessibility as regards other types of property. That district which conserves the greatest amount of time and energy would be the most valuable—all other things being equal. If two districts were identical in all respects, with the exception of the fares to and from the place of employment of those living in the districts, the one with the lesser fare would be the more valuable. If the districts were equal in all respects including the fare cost, with one district served by transportation at 10-minute intervals as against one-half hour intervals in the other, the district having the more frequent service would be the more valuable.

These comparisons serve to make more clear to us the facts that, in the final analysis, Accessibility is measured in terms of cost and time and, generally speaking, the capitalized value of the saving in cost and time would represent the difference

in land prices between two districts. An increase in accessibility, measured by an increase in the frequency of transportation service would also increase the market price of land in the district. A reduction in fares would accomplish a like result; while, conversely, an increase in fare, or increase in the time interval of transportation, would tend to reduce market prices.

TRANSPORTATION COST AS AN ELEMENT OF ACCESSIBILITY

In two districts wherein wage earners reside, each equal to the other with the exception of the car fares, which are five and ten cents respectively, the saving of five cents in fare would equal a difference in the intrinsic value of residential lots as follows: If five cents per trip would amount to a saving of $2.00 per month (commuter's rates) or $24.00 per year, then capitalization at 7 per cent would reflect a saving of $340.00.

This saving would obtain for the wage earner alone. However, each wage earner generally has three dependents who likewise do some traveling. Generally speaking, the quantity of money spent for transportation by the other members of the family is about 80 per cent of that spent by the wage earner alone so that the net result would be a saving which, at 7 per cent, would indicate a difference of about $600.00 in the capitalized value of residential lots in the two districts, accruing from savings in transportation costs alone.

Generally speaking, there would be a wider difference than indicated between the lots in the hypothetical districts mentioned, for the reason that that district having the lower car fare is generally closer, in terms of time, to the place of employment; and the period at which it might become desirable for multiple family use, is likewise nearer. These last two factors would obviously increase the difference in sales prices between the two districts. An investigation in small cities where a uniform car fare exists clearly bears this out. Lots within walking distance of the business district are the most valuable; and the lots progressively become of lesser value as their distance from place of employment increases. For those lots beyond walking distance, which are reached by street car transportation or automobile, we find that the saving in time and effort becomes less and residential lot prices decrease.

NEW VS. STABLE RESIDENTIAL DISTRICTS

The practical application of the foregoing reasoning, to the appraiser, can hardly be overestimated. If, in a stable district of a given social level he finds that residential lot prices are two thousand dollars, and that the difference in the capitalized value of the saving of time and money between this stable district and a new subdivision is a thousand dollars, and that the lots in a new subdivision are being sold at fifteen hundred dollars, he immediately recognizes the fact that the latter lots are over priced; that they should normally sell for one thousand dollars and that, with the recession in the activity of the subdivider, prices will probably fall. In appraising for loan purposes, the appraiser is not so much concerned with what property *has sold for* as he is concerned with what it *should sell for;* and a direct comparison of a stable district with a district which has not yet reached a point of stability is necessary if the appraiser is to arrive at a proper estimate of the warranted prices in a district which is in the process of building. By stability is meant a district wherein the identity of use is fairly well established; when the district is 70 per cent built up; and where sales take place

in the usual manner, without the fanfare of undue influence.

GROWTH OF CITIES

The growth of cities is similar to the growth of other things, such as the flora and the fauna; and, therefore, the "law of growth" applies equally well to all, differing only in degree. Briefly, the law of growth may be stated as follows—"Growth is the passage from a state of simplicity to a condition of complexity, both in structural and functional arrangement; and in this evolution, integration develops resistance against further integration."

In the development of a plant, we find that the growth is caused and controlled by environing agencies such as the quality of the soil, the quantity and quality of water, sunlight, cultivation, etc. In the development of a city, we find that growth arises from the activities of Mankind, and that this growth is dependent upon the quantity and quality of the services which can be performed, within the city, to satisfy the needs and desires of those who live both within and tributary thereto.

The industry and commerce of a city, and all of its activities are either directed, or immediately dependent upon Nature, such as her bounties of land which afford location, standing, room, and supporting power; her gifts of agricultural and mineral products, all of which are used to satisfy the wants of mankind. In no lesser sense are the flora and the fauna similarly dependent upon this same Nature. This similarity tends to illustrate the universality of the law of growth.

EVOLUTION OF GROWTH

In the development of seeds to plants, germination first occurs. Roots form, and press their way through the interstices of the soil. Later growth results in the plant sending up a single shoot which later divides into stems and leaves. Still later growth produces a flower, and thence fruit. The most noticeable thing about the process just described is that the growth from seed to fruit has been accomplished by the passage from a state of simplicity to a state of complexity, both as regards structural arrangements and function. It is also observable that the rate of growth of plants is rapid at the beginning, but lessens as maturity is approached.

This same reasoning holds true for the growth of cities. In the development of communities, there is also noticed the passage from a state of simplicity to a state of complexity as regards both structural and functional arrangement. The development of a city from a cross-roads community exemplifies an exactly similar process. The cross-roads merchant attended to the diversified wants of the community; he was grocer, hardware man, seed-dealer, dry-goods merchant, banker, post-master, and sheriff—all in one. With increasing population, the tendency was for the distribution of those vocations to specialists in each particular line, the decentralization of business ownership and management. The growth of a community brings into existence needs for transportation facilities to assist in further growth, additional domestic water supply, interurban lines, bus lines, paved streets, sidewalks, curbs, sewers, storm drains, garbage disposal, police protection, political administration, etc., etc. As the city continues to grow, additional complexities arise necessitating the opening and widening of streets, the re-routing of street cars and other public carriers, etc., and increased functional bodies are created to guide and serve the public, such as police and fire commissions, planning commissions, water commissioners, etc., etc., all of which are necessary to properly care for the changes attendant upon growth.

Fortunately, the population increases of a city are at a constantly decreasing rate, otherwise complexities may arise too quickly for governmental agencies to handle them before serious damage be done.

The Movement of Civilization

Civilization has always been a movement along the path of least resistance or, more correctly speaking, along the line of resolution of all tractive and repellent forces. People migrate to those places where the greatest amount of wants can be satisfied with the least expenditure of effort; or to those places where the forces of Nature are least antagonistic to the maintenance of existence, and to the fulfillment of desire.

Those people who settled along the ocean became fishermen; those in well-watered regions of fertile soil became farmers; while in the mineral districts, mining becomes the principal means of gaining a livelihood. The transfer of wheat from Montana to Europe will take place if the price receivable in Europe is sufficiently greater than the price obtained in Montana.

Thus is it seen that the whole interchange of commerce and the migrations and vocations of people are movements along the lines of least resistance.

This law is more closely illustrated in the massing of many lines of goods in one establishment—a department store. If people can visit one store and purchase many different articles, with a lesser expenditure of energy and time than would be necessary to purchase a similar quantity of different goods in a number of different places, they assuredly will do so, all other things being equal. The growth of large super-provision markets, selling groceries, meats, vegetables, bakery goods, delicatessen, etc., is merely another example of this law.

The reader may possibly wonder what all of these things have to do with the valuation of real property. As a matter of fact, a thorough understanding of these laws, and their practical application, is absolutely essential in the valuation of anything, be it real estate, natural resources, or securities. And it is not only necessary that the appraiser know these things, but he must also understand that the converse is inconceivable. For these reasons, examples will be shown to point out the universality and immutability of the law, commencing with physical, scientific, and philosophical phenomena, and ending with economics and reality—which after all is the primary purpose of this discussion.

Rainfall drains to the lowest point, and flows through already existent channels, rather than run up hill. The movements of a stick of wood in water, and the movements of paper tossed into the air are similar exemplifications. Similarly, organic growth takes place in the direction of least resistance. The formation of a root illustrates the law—it grows by insinuating itself, cell by cell, through the interstices of the soil. By minute additions the root grows, winds and twists in whatever direction is determined by the obstacles it meets in its path.

Applying this principle to include volitions—both as regards their generation and discharge; the antecedents of a voluntary muscular movement are of the character which temporarily makes the line along which these movements take place, the line of least resistance, and therefore the desire will be achieved with the least expenditure of effort. Similarly, the movement of society is in whichever direction there is the readiest escape from opposing forces, or where the exertion will be the least in obtaining materials for resisting these forces—or both.

It is because of these reasons that fer-

tile valleys are early populated. People go to those places where they can accomplish the greatest objectitves, or satisfy the greatest number of desires with the least amount of effort; or to those places where the forces of nature are least antagonistic to existence. The practical application of this last statement is readily seen in the development of Southern California. The forces antagonistic to nature are at a minimum; the climate is moderate, with no oppressively disagreeable seasons of snow, ice, thunder storms, etc. The sun shines a greater number of days in the year than in most places in the country and living conditions are generally superior. In addition to the desirability of this area for living conditions, the climate has a practical industrial advantage; because of the moderate difference between maximum and minimum temperatures, industrial buildings do not have to be built so expensively—to withstand snow loads on the roof, or to keep out the rigorous inclemencies of the winter season.

The people inhabiting any older region increases its numbers until it outgrows its boundaries, or its means of subsistence. Cities grow, ever extending their boundaries farther and farther out; nations grow, become over-populated and of necessity must press outward and seek new territories, oftentimes at the cost of war. Thus is there ever a force pressing outward, and moving along the lines of least resistance, as exemplified by stronger nations overrunning weaker ones. From the viewpoint of transportation; when goods were carried on horses, the paths chosen were those which combined shortness with levelness and freedom from obstacles, a typical illustration of movement along the lines of least resistance.

In subsequent paragraphs it will be pointed out how this tendency affects trading habits, the intensity of use of land, and the value of land itself.

TRACTIVE AND REPELLENT FORCES

In order that the reader may better understand the reasons for city growth, district mutation, or the shifting and changing of business and residential districts, as regards location—or for the changing as regards utilization, a brief discussion of the laws of motion and forces will be necessary.

From the standpoint of the scientist, there exists universally co-existent forces of traction and repulsion, a study of which reveals certain uniform tendencies, or laws of motion. For illustration, a magnet attracting a needle is similar to a high-grade residential district attracting the high-grade business district. This exertion of the magnet upon the needle, and of the residential district tending to pull the business district toward it, is called a tractive force. Conversely, an infiltration of a lower social element into a high grade residential district would act as a repellent force—causing a movement away from the district. Thus, the direction of movement is always along the line of the greatest traction, or of least resistance, or the resultant of the two. The exemplification of this law is clearly seen in the growth of any city. In a hypothetical case, let it be assumed that a growing community is situated on a narrow strip of land which is bounded along one side by a river, and on the other by a very steep mountain. In this case, the town would expand along the river and the mountain, but would not jump the river, nor climb the mountain, if sufficient room were available for expansion on the level. Such expansion would be a movement along the lines of least resistance, (along the level) and the business district would tend to

move in that direction where there was the greatest population increase.

These movements, such as we have been discussing, are going on in every growing city. The term "growing" city is herein used advisedly for the reason that if the city were not growing, the forces would be balanced, and there would be no movement. It also follows that the more rapid the addition of population to a city, the more rapid will be the movement of the downtown district, ever adjusting itself to the tractive forces created by the purchasing power of the population.

PURCHASING POWER AS A TRACTIVE FORCE

It has often been stated, and it is observable, that the *growth of the downtown shopping area of cities is in the direction of the best residential district.* While this is true in a general sense, the statement alone merely explains one mystery in terms of a greater. However, when instead of the best residential district, we start to consider purchasing power as representing forces, we pass from a rough qualitative concept to a more or less quantitative one. If each square mile of a city's area can be represented as a definite amount of force, expressed in purchasing power, each possessing the same tractive effort, and equally disposed along the streets, we would find no motion exemplified. If we add another square mile of purchasing power to and along the street at one end, we would immediately have an excess force in the direction of such addition. This illustrates the general law of movement of shopping centers. However, the growth of purchasing power in cities cannot be represented in such simple terms, as there are additions to purchasing power taking place in many directions at the same time; and, further, these additions reach the object to be acted upon by circuitous means, such as by street cars, automobiles, and otherwise.

THE RESULTANT OF FORCES

In order to understand the mathematical theory involved in the recital of the foregoing, a brief discussion of physics will here follow. Referring to the sketch on page 258, Figures 1 and 2 are the simplest illustrations of two forces simultaneously acting upon the same body. The body is designated by the letter "O," the two forces are shown by the lines "O-A" and "O-B" which lines represent, firstly the direction of the tractive force, or the pulling, and secondly, the lengths of the lines denote the intensity of the tractive or pulling forces. For example, if one line is twice as long as another, it would signify that one force is twice as great as the other, therefore, by drawing the lines to scale, the actual force exerted upon the body and the direction of such resultant force and its intensity as well can be graphically shown as follows:—in Figure 1, draw the lines "A-C" parallel to "O-B" and "B-C" parallel to "O-A"; then a line drawn from the intersection of the lines thus drawn to the point "O" which will represent, first the resultant of the "O-A" and "O-B" forces, which means the actual path in which the body ("O") would move, and secondly the length of the line "O-C" denotes the intensity of the tractive force, as compared with "O-A" or with "O-B." Figure 2 is similar to figure 1, except that the two forces are not acting upon the body at right angles to each other. Figure 3 is somewhat more complex, having the same principle involved but with three forces acting upon the same body, namely, "O-A," "O-B," and "O-C"; and the graphical solution of the resultant of these three forces is as follows: Draw line "A-D" parallel to line "O-B"; draw line "B-D" parallel to line "O-A," and a new

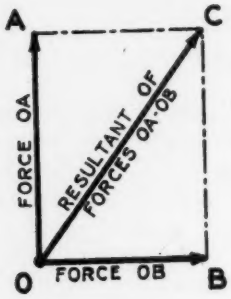

FIGURE 1

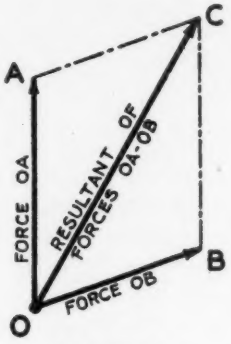

FIGURE 2

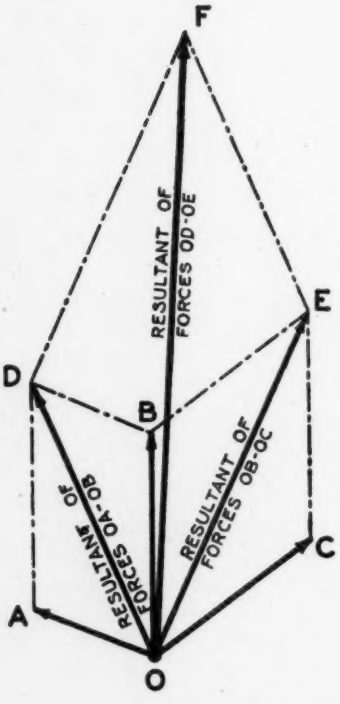

FIGURE 3

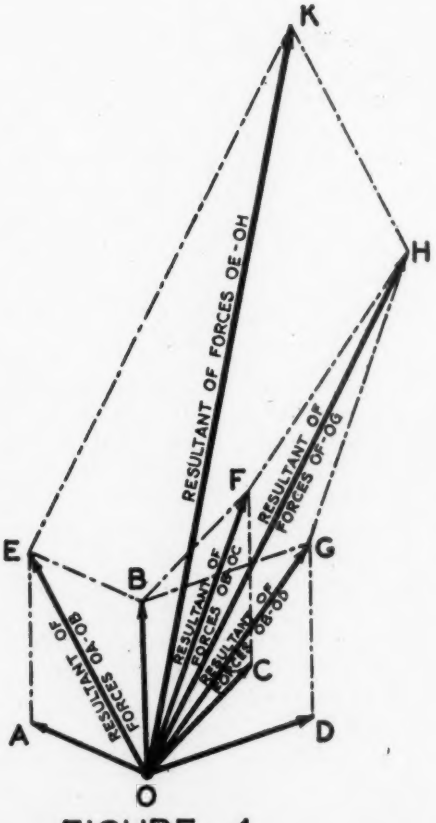

FIGURE 4

line drawn from "O" to the intersection thus formed called "D" represents the resultant of those two forces (O-D). Next draw line "C-E" parallel to line "O-B," and draw line "B-E" parallel to line "O-C" and a new line drawn from "O" to this intersection called "E" represents the resultant of the forces, "O-B" and "O-C" (O-E). So far we have reduced the three forces into two forces. In order to reduce these two forces into the one final resultant force, the same procedure is followed as before, namely, draw line "D-F" parallel to resultant force "O-E"; then draw line "E-F" parallel to resultant force "O-D," and a new line from "O" to the intersection thus formed called "F" will be the resultant of all three forces acting upon the body "O," both as to direction and intensity. Figure 4 is somewhat more complex than figure 3, being one in which there are four primary forces acting upon the body "O," namely, "O-A," "O-B," "O-C," and "O-D," the resultant of which is "O-K," computed in the same manner as heretofore explained.

THE DIRECTIONAL MOVEMENT OF A BUSINESS DISTRICT

The practical application of this problem to the study of trends and district mutation in the practical field of real property economics may be briefly explained as follows. For example, in figure 3, the body called "O" may represent the location of the "hot-spot" in the high-grade business district; the force "O-A" represents the tractive force exerted by the purchasing power of the population lying in that direction and tending to pull the business district "O" out towards "A"; similarly, the force "O-C" may represent the tractive force and direction exerted by the purchasing power of the population lying that direction and tending to pull the business district toward "C"; and the force "O-B" represents the tractive force and direction of the population purchasing power lying in that direction and tending to puli the business district toward "B." In this case, the theoretical movement of the business district "O" would be along the line "O-F" in the direction of "F." However, the actual movement of the business district, would not be in a straight line but would follow streets, developing heavier on one side of the street than on the other, and making right angle turns around corners, but in general will follow as nearly to the theoretical line as the street lay-out will permit.

In estimating the directional trends in city growth which will take place in the future, we must bear in mind the fact that the downtown shopping area, which is the "object" acted upon by forces, is acted upon in the direction of street car and other transportation approaches. We must also bear in mind the fact that these approaches are in themselves determined by *movements along the lines of least resistance* and that, what might be a line of least resistance with a given amount of force, might not be the line of least resistance if additional amounts be added, that is, an additional amount of force might bring about the construction of a subway, an elevated railway, or the cutting through of a major traffic artery, all of which would change the line of direction in which past forces have acted and present and future forces will act.

♣ ♣ ♣

The Inapplicability of the Ricardian Rent Theory to Present Day Conditions

By IVAN A. THORSON, M. A. I.

"There are a lot of silly fetishes holding us back now. Queer, senseless rules laid down by forgotten generations of the haughty and the ignorant. They are so much dead weight. They are like so many corpses. They are of no more value in these times than bear claws or wampum. Nobody can give any real reason for carrying them along. Yet we build our thinking around them. Our institutions are honeycombed with their faulty wisdom."

(Ernest Seeman in November, 1934, Forum.)

HERE in California we are confronted for the sixth time with an attempt to put into our Constitution a so-called Single Tax amendment which has for its purpose to levy all taxes of every kind on land alone—not on the factories, warehouses, office buildings, hotels, apartment houses, railroads, and manufacturing equipment, nor on earnings from any other source, but exclusively on land.

The Single Taxers says in substance that land is "the common product of the whole State." That is, since their claim is that land is the "free gift of nature," one man has no greater right to the use of it than another man. No matter, say the Single Taxers, whether an individual has paid for his land, even as for his automobile, he still has no right to the benefits derived from it, as he has from his automobile.

HENRY GEORGE AND RICARDO

The Single Taxers justification of their proposal is the out-dated theory of Henry George, who, writing some sixty years ago, brought forth his famous Single Tax Doctrine from which the present Single Taxers derive their name, and much of the substance of their arguments.

From the time America was discovered until very recently, we have been living in a period of constantly rising land prices, a situation true of Henry George's day, but a condition which does not obtain today. During this period there have been many cases of tremendous increases in land values owing to little effort on the part of the happy possessors of certain parcels of land, around which grew cities, or under which were found great stores of oil, coal, iron, or precious metals. Many early settlers acquired their land through homesteading, or simply through "squatting" on the land. Later these lands increased greatly in value because of the advent of the railroad, or the building of cities nearby, and for sundry other reasons. According to Henry George's doctrine, the value thus accruing to the owners of such property could in no sense be construed as having been earned by any individual. The increase in value was created, he held, by society in the mass, and therefore rightfully should revert to society. This "unearned increment" should be absorbed through taxation, and the revenue thus gained was held to be sufficient to run the government. This was Henry George's belief, and with some foundation in his day. That in turn the still older Ricardian

Rent Theory is the hoary grandsire of the Single Tax doctrine is quite obvious.

THE ECONOMIC RENT THEORY

The classical definition of David Ricardo's Rent Theory boils down to the statement that rent from land is due to the difference in the cost involved in producing crops on a given piece of land, and the cost of producing these same crops on the poorest (marginal) land under cultivation.

On this theory has been built a purely theoretical doctrine purporting to be the base on which all land valuations should be predicated.

The persistent adherence to this theory is rather surprising in view of the fact that the theory of economic rent was promulgated some hundred and twenty-five years ago by David Ricardo, a British economist, and intended to apply to agricultural land only, in a small country of definitely limited area, in an economy wholly dependent upon hand labor, the actual working of the soil being performed by a renter class.

A SIMPLE IDEA MADE COMPLEX

Let us examine more closely into just what this Rent Theory is. Analyzed, it means simply this, that before any net income from land can be had, all necessary expenses must first be paid by the owner, such as for labor, the purchase and upkeep of tools and implements, payment for fertilizers (up to a point of diminishing returns), and for such supervision as is necessary to get the most out of the land. If the land, because of the lack of fertility and suitableness, returned less than this necessary cost, it was called sub-marginal land. If, on the other hand, the returns were exactly equal to the cost of production, the land was termed marginal land. It was the cost involved in producing crops on marginal land which, according to Ricardo and his followers, set the standard or norm of production cost—that is, the cost of producing crops on ANY land was theoretically that of producing crops on marginal land. Any returns from the land above the margin was what Ricardo referred to as "economic rent."

To put it still another way: If the cost of the labor, of the capital invested (in tools, implements, fertilizer, etc.), and of the management (necessary supervision) were, say, $10.00 properly to cultivate one acre of marginal land, according to Ricardo's theory, it would also cost $10.00 per acre to cultivate either sub-marginal or better land. However, as marginal land was the poorest land that could be cultivated without a loss, paying out $10.00 for the cultivation of an acre of sub-marginal land would entail a loss. Naturally, therefore, sub-marginal land would not be cultivated; the marginal land would have no value to the owner; while the better land would yield a profit.

To sum up: The owner would make a profit (economic rent) from better land, break even on marginal land, and suffer a loss if he cultivated sub-marginal land, assuming that the cost of the labor, capital, and management involved in the cultivation of each grade of land would be the same.

MANY INCONSISTENCIES IN RICARDO'S REASONING

We believe that the reader will already see several flaws in Ricardo's reasoning, but for argument's sake we shall disregard any consideration of the difference in the various laborers' physical capacity, ambition, or skill; and also any difference there may be in the efficiency of the implements used, as well as any difference in the ability and ingenuity of the supervisors or managers, not to mention any difference in the chemistry of the soil and the varying

difficulties in cultivating the different kinds of soil; any or all of which would make a great difference in the ultimate cost of the product.

The cost of producing crops being the same, regardless of the grade of land utilized, Ricardo reasoned further that it would make no difference to society in general if the entire surplus from the land were absorbed by the State as a tax; the land would still go right on being cultivated at its full capacity, as labor, capital, and supervision would continue to draw their full quota, and the land would be available for use in "undiminished quantity and fertility."

Ricardo, in common with some other economists of this period, was very sympathetic with labor, and rightfully so, as labor, generally speaking, at that time, was on a bare subsistence level. Furthermore, land was regarded as nature's gift,—originally intended to be, as stated, "the common property of all." Any return beyond that required to pay labor and other necessary costs was in the nature of an "unearned surplus" which was begrudgingly conceded as belonging to the landlord.

RICARDO'S THEORY SOURCE OF SINGLE TAX IDEA

It was this conception of the status of land and the earnings from it which later, with some modification, formed the basis of Henry George's Single Tax doctrine, and which persistently bobs up in the form of proposed amendments to the various State Constitutions, sponsored by Single-taxers, many of whom sincerely believe in the socialization of land.[1]

As stated, the Ricardian Theory merely amounts to this, that before any net income can accrue to an owner of land, all the necessary expenses must be paid. Stated in this way it can hardly be said to be a new discovery. It has always been necessary to pay costs before any profit could be garnered, even though such costs were merely for the feeding of slaves.

No one should have any quarrel with this simple statement of fact, that net income will accrue only after all necessary costs of production are first taken care of. It was the disposition of the surplus (economic rent, so called) which has caused a great deal of controversy and confusion among economists.

RICARDO'S "COSTS" AND "SURPLUSES"

Ricardo and his followers make a distinction between income which goes to cover "cost of production" and "surpluses":

1. Costs are payments which must be made to secure production.
2. Surpluses are extra returns, not essential as an inducement to production.

Let us separate the various elements of Ricardo's costs so that the mis-application of this theory to present-day conditions may be more clearly shown. His costs consisted of the following:

1. The cost of labor—the labor of the renter and his workers;
2. The cost of capital.
   A. Tools and implements[2]
      a. Their original cost;
      b. Their upkeep (largely an item of labor);
   B. Fertilizers;
   C. Interest on borrowed money, if any;
3. The cost of necessary supervision or management.

Of these three (labor, capital, and management), it was argued that labor is the most important and therefore would have first call on the returns. Next in line would come interest to capital, and lastly payment to necessary supervision (organization, management).

Surpluses are supposed to be anything

[1]While Henry George denied that it was his intention to completely socialize land, the effect of putting his theory into operation would inevitably lead to this.—Author.

[2]Ricardo considered the product of past labor as "canned labor," and reasoned that it therefore could be placed in the category of necessary costs. The fallacy of this viewpoint is set forth in this article.

above these costs, and according to Ricardo and his followers, such surpluses are not necessary to induce production. Rent from land is the item given as the most outstanding example of such surplus,—the argument being that even if through tax levy or otherwise all rent from land were confiscated, the land itself would still, as stated, be available for use in "undiminished quantity and fertility." That is, the rent is purely due to the difference in the fertility of farm land, and to the difference in the site or location value of urban land, and can not be accounted for by any effort on the part of the owner.

TODAY'S CONDITIONS VASTLY DIFFERENT

It marks the height of absurdity to assume that this theory can be applied with perfect fitness to present-day urban land, in a highly complex machine economy, in a country which has never had, nor is likely to have, either a large renter class or a land shortage.

Such a theory may have had some merit in Ricardo's time (some one hundred and twenty-five years ago) when the land owners, who were comparatively few in number, whose individual holdings were generally large, left the entire work of cultivating the land to renters, (spending their own time in the hunt or in other occupations which gentlemen of leisure at that time were wont to pursue). It is really amazing that any attempt should be made to apply this theory to present-day conditions which are so radically different from those which obtained in Ricardo's country over a century ago. We need mention only a few of the conditions which prevailed in England in Ricardo's time:

1. Practically all land was cultivated by a renter class.

2. The cultivated land in England at that time was of a rather uniform nature. Physical obstructions and natural barriers to cultivation had been removed generations before. Ricardo no doubt had the impression that the land had always been in that condition,—that is, wholly nature's gift to the value of which man had added but little.

3. There were limited quantities of available agricultural lands, a condition which still obtains in England, who must import her foodstuffs to a very large extent.

4. Cities had not become important as yet; it was essentially a rural society. The machine age was just getting under way; cultivation was done by hand labor; the tools and machinery used were primitive.

THE SITUATION IN OUR COUNTRY

In contrast to the conditions enumerated above we find the following prevailing in our country:

1. We have practically no renter class.

2. A great deal of our land may be said to be "man-made." Forests had to be cleared, arid land irrigated, swamps drained, and floods controlled before our land could be put to use.

It might be noted that to a large extent the difference between the productivity of farm lands in America, and therefore the value of farm land, has been due to the amount of labor, capital, and skill expended on raw land,—that is, on nature's original gift. In other words, the price paid for cleared and useable land was represented approximately by the cost of man's efforts applied to Nature's resources. Furthermore, these efforts were expended by the actual owners and their families and very little by hired labor or renters.

3. There always have been, and still are, available vast quantities of land, much more in fact than we can profitably use;—cotton and grain are being ploughed under,

millions of feet of unused floor space may be found today in every large city.

4. We are now living in a machine age. We are to a large extent an urban society. The cultivation of our farms is performed by the owner, (the farmer), with machinery; and machinery is used to such an extent that the farmer cannot find employment even for his own family, the sons and daughters going to the city to add to the already overcrowded labor market.

A number of the early American economists recognized the difference between the conditions in our country and the conditions prevailing in England under which the Ricardian theory was developed, and took violent exception to the tenets of this doctrine. Among these economists were Raymond, Phillips, Wilson, Bowen, Perry, Tucker, and Carey. However, they were ignored by the so-called classical, orthodox school, which had almost complete dominance over the economic teaching at that time.

CONFUSING COST OF CONSTRUCTION WITH COST OF OPERATING THE PROPERTY

As stated, followers of Ricardo maintain that labor, capital, and management (organization) have first call on the returns from the rents accruing from a property. So far as the labor, organization, etc. which go into the operation of the property are concerned, this may be said to be true. This is not true, however, as regards the labor, capital, and management (organization) which have gone into the construction of the improvement. The following will serve to illustrate this point:

Brown purchases a lot on 12th and Grand, in Hope City. He erects a four-story building, stores on first floor and offices above, costing $100,000.00. His lot cost $50,000.00.

We all agree that to secure his $100,000.-00 building Brown must pay for labor, material, supervision, etc., which enter into the construction of the building. However, when the building is completed and the contractor, carpenters, material men, etc., have been paid off, Brown has absolutely no further obligation to these laborers, contractors, etc.

Nevertheless, through some peculiar quirk of reasoning, the Economic Rent theorists hold that forever after, the building should have first call on the income from the property, and "only after there has been allocated to the building a reasonable return on the investment in it, can any of the income be allocated to the land,"—apparently forgetting altogether that the labor, etc., which went into the building, has absolutely no further claim on any of the income, all the obligations to it having been discharged.

It is quite apparent that the Economic Rent theorists are confusing the labor, capital, etc., which go into the construction of the building, with the labor, services, etc., required to operate the property. The janitors, the maids, the manager, the public utilities, the upkeep and repairs,—these are the items, and the only items, which have "first call" on the returns from rent. In other words, the owner must pay the ordinary running expenses before he can get any net returns for himself from his land and building. That there is no prior obligation due the labor and other items which went into the construction of the building (in some cases thirty or forty years ago) is quite evident.

COST DOES NOT ALWAYS CREATE VALUE

Strange as it may seem, there are a number of able students even today who seem to hold the idea that whenever labor is expended or other cost is incurred, value has been produced. Production is the creating of useful qualities in material things, and only to the extent that labor

has produced such useful qualities, has there been production. Moving the stone pile across the street and back again may involve a great deal of labor; likewise the erection of an office building in the Sahara desert, but in neither case has value been created. A subsequent purchaser of the stone pile would utterly ignore the labor that had been expended on it in moving it back and forth across the street. The same holds good in more or less degree where labor is applied to any ill-advised project. The labor element is the first that would disappear. The principle is not altered by the fact that the mover of the stone pile or the builder of the desert structure would have to pay his laborers or feed his slaves as compensation for moving the stone pile or for constructing the building.

The sooner, however, the stone-pile-mover or the desert-builder charges up such futile performances to profit and loss and to "experience," the sounder will be his set-up.

CONFUSION OF COST AND VALUE HAS WROUGHT TREMENDOUS MISCHIEF

One of the most mischievous mistakes in the appraisal practice of the past has been this confusion of cost and value. The delusion that whenever cost has been incurred, value has been created has resulted in a cost finding instead of a value finding procedure and has been responsible for hundreds of millions of dollars of loss to investors. The office building in the Sahara desert may have cost a million dollars but would not be worth a nickel.

APPAISING AN ART, NOT A SCIENCE

Economics, and this includes appraising, is not a science in the strictest sense; it is an art which is defined as "knowledge applied and made efficient by skill." Economic laws or rules exist in a statistical sense only. They do not operate with the certainty of the laws governing the exact sciences, as chemistry, physics, or mathematics. It is impossible to formulate specific and exact rules and principles governing land appraising, depending as it does so largely on the human equation. Appraising therefore is, and will remain, an art, based on science, it is true, but nevertheless an art. It is well that this is so, for the reduction of any occupation to a basis of infallible formulas kills competence and puts a premium on mediocrity.

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The Appraisal Report

By J. ALVIN REGISTER, M.A.I.

IT should be customary procedure to furnish persons or organizations employing an appraiser with an adequate report when the valuation of a certain property is complete. In general, there is little to be said in favor of the very brief form giving virtually no information other than the statement of the appraiser's opinion as to the value of the property. An opinion is no better than the facts upon which it is based; and this type of report does not inform the client sufficiently to enable him to tell whether the figure is a mere guess or whether it has been arrived at by taking into consideration all the factors necessary for a true estimate of value.

This statement therefore raises the question as to the nature of the report that should be prepared. In general, appraisers' reports may be classified into two groups, A and B, depending upon the purpose for which the appraisal is requested. But in either event the opinion of the appraiser should be supported.

A. Reports with legal and physical description of the property, containing some facts relative to the elements of value, including income and expenditure, and concluding with a summarizing statement in which the appraiser sets forth his conclusions.

B. Extensive and complete reports detailing all pertinent facts pertaining to the property under appraisal, including the history of the property, statistical information, actual analysis of the elements of value and logical application of same, and the principal consideration upon which the opinion has been based; in other words, all factors used by the appraiser, which he took into consideration in arriving at the value.

In either case the report should not burden the client with lengthy considerations and technical matters which he cannot comprehend. Yet, it should contain conclusive facts to show that the appraiser's judgment in analyzing the data shown in the report is logical and sound. When we take into consideration the importance of an understandable report, one of our primary considerations should be the acceptance as a whole of uniform principal appraisal terms. There is a group in the American Institute of Real Estate Appraisers, headed by Mr. K. Lee Hyder, working toward uniform and scientific terminology which will remove one of the greatest difficulties in interpreting appraisal thought. Great progress should be made in the next few years along these lines.

All appraisal reports are prepared with the same main idea in view as to contents and arrangements; but the procedure varies according to the classification of properties under which the particular property falls. Appraisals are made on properties falling under the head of investment, non-investment, and service properties.

The contents of either form of report can be bound between covers ranging in type from heavy special paper, comparing in size with the business letter-head, to a specially designed leather cover engraved with the appraiser's name and address and the name of the client. The cost is inconsequential. The selection of the type to use depends entirely upon personal preference.

For illustration we will concern ourselves with the more detailed and comprehensive type of report dealing with a small commercial property coming under the investment classification.

Following an index of the contents of the report, the first entry should be the certificate, engraved, printed, or typed with a place for the name and address of the client, a place for the description of the property, a statement of any contingent condition upon which the appraisal is based, the date or time at which value obtained, the amount of value, and a statement disclosing all subject interests which the appraiser has in the property appraised. The certification of the appraiser as to the value of the property should follow. He then attaches his signature and dates the appraisal. If a Member of the American Institute of Appraisers, he may use the initials M.A.I. after his name.

The next enclosure will be one or more photographs of the property showing not only the property appraised, but also a view of the street looking in both directions from the property. The size of the photograph may vary. The plat of the property should appear on the next page and should show size and shape of the land, with all dimensions of the property. If an inside parcel, the plat should show the number of feet from the corner. In preparing this plat it can either be traced from a survey or a record plat, but in any event it should be drawn to scale. A neat appearance is obtained by having the plat photostated. It would be well to show on the plat the full legal description of the property.

Next in sequence is a map of the district showing the property in relation to the business center and the prevailing trend of city growth. If an aerial photograph is obtainable from a local photographer, it is desirable to insert it at this point, marking the property under appraisal with an arrow. This will give some idea of the type of surrounding buildings. The district map should be marked to show the location of all recent sales, long term leases, or any other developments that would be either an advantage or a disadvantage to the client.

LOCATION AND TRANSPORTATION

A written report following should contain under the proper headings of "location and transportation," a full description of the location of the property with respect to the business district, the type and class of the district showing zoning restriction (if any), the stability of the location, and the current trend. Full data concerning the neighborhood at present, and the appraiser's forecast of the future, should be given and the report must disclose any disadvantages that are apparent or indicated. It is necessary to enumerate the transportation facilities serving the neighborhood.

LAND AND IMPROVEMENTS

Information gathered under the term "land" includes full legal and physical descriptions of the property. The appraiser should state under this heading the value of the land, if vacant and capable of being developed to its highest and best use. He must also support his opinion as to the value of the land by citing recorded sales and leases of similar character in the vicinity. Such information may usually be obtained without much difficulty.

Following a photograph of the building, and under the heading "improvements," there should be a full description as to the type and class of construction, the number of stories with detail description of each unit. A reduced-size floor plan is most helpful in visualizing the layout. A statement as to the age and condition of the building, a statement as to the replacement cost new, showing how the cost was arrived at, a statement as

to the present value of the building after deducting for depreciation and obsolescence, and a statement as to its estimated remaining usefulness or economic life should be included.

GROSS EARNING EXPECTANCY

Under this heading a schedule should show past earnings by years; a statement listing various tenants and their type or class of business, enumerating present rentals paid, and, also, showing the number of vacancies. If any units are under lease, the expiration dates should also be given. If the future earnings are to be predicted, then a statement must be made showing the basis for this opinion and supplying the supporting data.

The soundness of the appraisal will depend largely upon the accuracy of determining the earning power of the property.

MAP

Follow this with a map of the neighborhood showing stores within reasonable distance of the property under appraisal, type and class of business, the rentals paid, and vacancies in the neighborhood. This map is to be used for comparing the retail units under appraisal.

METHOD USED IN VALUATION

Next in line should be a page explaining briefly the method or process used in valuing the property in order that the client, or anyone reading the report, may be able to follow the line of reasoning and the method employed.

EXPENSES AND NET EARNINGS

A page should be devoted to expenses. The actual annual expenses should be itemized and shown in detail; also, if available, the annual expenses for the past several years should be shown for comparative purposes. In certain years, due to some unusual condition, the expenses on certain items may be more or less than the average. By having and showing both the present and past expenses on property, the appraiser is in a better position to judge its probabilities and better able to convince his client. Many reports describe expense factors very briefly. Since this is one of the major factors affecting the value, the report should list completely the various items and comment upon them in detail.

The net earnings, or series of net earnings, are shown as well as the distribution of the same between the land and the improvements. Next, these net earnings are capitalized; and the report should show the method of computation as well as the computations themselves. The capitalization rate or rate of return should be explained, giving the reason for such rate or rates.

VALUE

The report should show the capitalized value of the net earnings expectancy and set forth the steps used in the final determination of value. Following this, it should also show the distribution of the value between land and improvements. All sales, leases, actual cost of similar buildings, ground floor rentals, and other related information should follow, with comments on each, to support the appraiser's opinion. It is well to include photographs of each property offered in comparison.

The last pages should list the qualifications of the appraiser and the limiting conditions upon which the appraisal has been made. The qualifications should be enumerated in order that the client may judge the appraiser's experience and reliability.

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Comment and Discussion

How to Treat Depreciation

DEPRECIATION is defined in the Standards of Practice worked out by the old Appraisal Division for the National Association of Real Estate Boards as:

"Gradual exhaustion of the usefulness of property, such exhaustion comprising wear and tear, decay or decline from natural causes, and various forms of obsolescence such as are attributable to the normal progress in the arts, inadequacy to growing needs and the necessity of replacement by new inventions."

Depreciation is defined by the Committee of Education and Research of the American Institute of Real Estate Appraisers, in its tentative report on Standard terminology as:

"Loss in value from any cause. In appraisal technique it is relative, usually capable of expression in terms of money, and may recognize and be considered as resulting from one or all of the following:

"1. *Deterioration*—The loss in value from the existing physical condition as compared to a new property, and brought about by wear and tear, disintegration, use in service, and the action of the elements;

"2. *Functional* — The loss in value through decreased utility, factors of obsolescence from over-capacity, inadequacy, changes in the arts, or other similar influences that affect the property item itself or its relation with other items comprising a larger property;

"3. *Economic* — The loss in value through decreased utility that results from the external economic conditions affecting the character or degree of utilization."

Please note that the Appraisal Institute has never approved the old standards of practice. Also the Institute has not yet approved the tentative standard terminology.

For the purposes of this discussion, it is understood that the term "depreciation" as here used, covers all forces, causes or things that contribute to the wearing out or breaking down of the usefulness of the improvements, from any standpoint.

An analysis of appraisal reports presented in the "National Real Estate Journal" and from other sources during the last three years, reveals that the following step-by-step procedure in the appraisal of income property is being used by prominent appraisers in many widely scattered parts of the country. It is presented here purely for the purpose of discussion.

1. Determine the gross income.
2. Determine the effective gross income, i.e., after vacancy.
3. Determine the gross operating expenses.
4. The difference between (2) and (3) will be the net income before income on improvements and depreciation.
5. Determine the cost of new improvements; the economic life; the rate.
6. Determine the level annual sum necessary to pay income on improvements and sinking fund requirements for entire economic life.
7. Subtract (6) from (4).
8. Difference will be the amount applicable to land.
9. Determine the value of improvements, which will be the present worth of (6) for the future economic life of the improvements.
10. Capitalize (8) at proper rate to perpetuity, which amount will be the land value.
11. Add (9) and (10)—This sum will be the appraised value of the property.

First Problem

A three story apartment building containing 12 apartments, located in a medium class, well built up residence district in a mid-western city of 600,000 inhabitants. Lot is 60x86 ft. Building built 3 years ago and is in good condition.

Gross annual income	$ 9,360.00
Vacancy and loss in collections	750.00
Yearly maintenance and operating charges	3,905.00

This paper was presented for Round Table Discussion at the Regional Meeting of the Institute in Detroit on May 29, 1935.—Ed.

Cost of improvements—new	49,150.00
Economic life	40 years
Rate of income on building	8½%

SOLUTION

1. Gross Income	$ 9,360.00
Vacancy	750.00
2. Effective Gross Income	$ 8,610.00
3. Gross Operating Expenses	3,905.00
4. Difference—Net Income before Int. and Dep.	$ 4,705.00

5. New—$49,150.00—Economic Life 40 years—Rate 8½%.
6. Level annual sum to pay 8½% interest on improvements plus 8½% sinking fund—Factor is .0033 (Inwood) + .085 = .08838 — $49,150 × .08838=$4,343.88.
7. $4,705—$4,344=$361.
8. Applicable to land—$361.
9. Present worth of $4,344 for 37 yrs. @ 8½%—Factor 11.19 (Inwood) × $4,344 = $48,609.00
10. $361÷.06= 6,017.00

11. Appraised Value of Property	$54,626.00

As I understand it, the above process treats depreciation by setting up a sinking fund @ 8½% compound interest to recover the cost of the building during its entire economic life.

ANOTHER PROCESS

Cost of building—new	$49,150.00
Economic life—new, 40 years—3 years old—Depreciation—2½% for 3 years equals 7½% or	3,686.00
Depreciated value of building	$45,464.00
Sinking Fund to recover $45,464 in 37 yrs. @ 4%—Factor .0122 (Inwood) × $45,464 =	$ 554.66
Building should earn 8% — 8% of $45,464 =	3,637.12
Earnings of Improvements plus Sinking Fund	$ 4,191.78
Net income before earnings & S. F. requirements—See (4) first process	$ 4,705.00
Earnings of Improvements plus sinking fund (See above)	4,192.00
Attributable to Land	$ 513.00
Capitalized to perpetuity at 6%—$513÷.06=Land Value	$ 8,550.00
Add depreciated value of building	45,464.00
Appraised Value	$54,014.00

Depreciation is here treated by the straight line process @ 2½% for period the building has been in use, and to cover the future depreciation on the building, a sinking fund is set up at 4% compound interest.

SECOND PROBLEM[1]

Building—5 story, semi-fireproof, walk up apartment. 6 years old. 84 apartments—290 rooms—12 stores—6 offices. Remaining useful life, 25 years.

Estimated Net Rentals

		Factor	Present Value
1st year $36,480	1 year @ 12%	.8929	$32,600.00
2nd year 31,800	1 year @ 12%	.7971	25,300.00
3rd year 35,900	1 year @ 12%	.712	25,500.00

After 3 years for 22 years, rents stabilized at $40,000.

Present Value of $40,000 for 22 yrs. @ 10%, is .8772×$40,000=$350,000.

As there is some hazard in regard to rents reaching this amount, the Present Value of $350,000 for 22 years after 3 yrs., is computed at 15%—Factor .6578 × $350,000=.... 230,000.00

Residual value of land after building exhaustion, is the present value of $145,000 (land value previously determined) or value of $145,000 after 25 years @ 12%—$145,000×.0588= 8,550.00

$321,950.00

Deductions—

On refrigerators	$ 9,500	
Painting and minor repairs	2,000	11,500.00

$310,450.00

Allocation—

Land	$145,000
Building	165,000

(This is the present value of the property as shown in the appraisal certificate) $310,000

THIRD PROBLEM[2]

Assume net income from a building of	$ 4,700
Remaining useful life	20 years
Land value fairly stable at	$10,000

[1]See *Real Estate Appraisal and Valuation*, by Philip W. Kniskern, page 492.
[2]*Ibid.* Page 433.

SOLUTION

The value computation would be:

1. The value of the income which continues during the life of the buildings, Present value $4700 per year for 20 years @ 8½%—$4700×9.46334 (Inwood) =.....	$ 44,482.00
2. The value of the reversion to vacant land at exhaustion of the buildings— Present Value $10,000 after 20 years at 7%—$10,000×0.25842 (Inwood) = ...	2,584.00
Present Value of the Property..	$ 47,066.00

As regards *depreciation* in the above processes—Kniskern states, Page 434, "As explained on Page 416, the *Present Value* tables provide for payment of interest and repayment of principal. Then at the end of 20 years, the $4,700 per year, will have repaid the entire $44,482 investment, plus interest at 8½% each year, upon the unpaid balances.

"When the income ceases with the economic exhaustion of the building, the only valuable asset then remaining, will be the land, virtually vacant, assumed then to be worth $10,000. In line (2) we compute that $10,000 to be received at the end of 20 years will repay $2,584 principal plus interest at 7% compounded annually for 20 years."

SOLUTION OF ABOVE PROBLEM BY USING HOSKOLD'S S. F. VALUATION PREMISES

Income on property	$ 4,700.00
Useful life	20 years
Stable land value	$10,000.00
Present Worth of $4700 @ 8% and 4% for 20 years — Factor is 8.804 — $4700×8.804 = ...	$ 41,379.00
Reversionary value of land after 20 years at 7% — Factor .2584— $10,000 × .2584 = ...	2,584.00
Therefore the value by this process, is $41,379 plus $2,584, or ..... (Note that this value is approximately 6½% less than by the Kniskern process.)	$ 43,963.00

The Hoskold 8 & 4 table includes 8% simple interest on investment, plus 4% compound interest to cover *depreciation* or to recover the principal sum at the end of the useful economic life of buildings.

On page 165 of *The Valuation of Real Estate*, Frederick M. Babcock says:

> "There is but one theoretically correct method of valuation (Note Page 139)—Applicable to typical properties in fee simple). In chapter 13, this method was described in the following manner:
>
> "'The theoretical method of valuation commences by studying the future utility of the property—that is, by forecasting the returns to be expected from the entire productive unit, the returns to land being residual under the highest and best use, and the building returns, if the building is not the highest and best use, being made residual after the land return. The method proceeds, by discounting, to a calculation of the present value of the net returns, the building returns being for finite building lives, and the land returns being extended to perpetuity. In the method, the building value is so determined that the predicted building return provides both interest and a return of the capital value over the building life. Rates are determined in the market.'"

In submitting above methods of treating depreciation for your consideration, I am neither advocating nor criticizing any particular method.

RALPH V. FIELD, M. A. I.

Galesburg, Illinois, May 28, 1935.

ARE 100% RESIDENCE LOANS AGAIN BEING MADE?

THE real estate and mortgage world was unanimously of the opinion from 1929 to 1934 that most of our ills of the past decade, were due to the insatiable appetite of the professional builder for borrowing, and the keen competition of the mortgagee class with their unlimited millions, for lending. Loans of 100% and over were a common occurrence. The builder had everything to gain and nothing to lose.

The reaction against this practice, and against the cheap houses of the irresponsible building and the careless lender, was

so great, that it was freely predicted a year or two ago, the house builder was no longer a factor in our housing program; that hereafter the prospective home owner would take his 20% or 25% in cash, supplement it with a 75% or 80% mortgage loan from some governmental agency, or Building and Loan Association, or other mortgage company and build his own home.

But the professional builder is not out of the picture, as we have learned in many parts of the country, where building operations are reviving. He has been an important factor in the housing of this country, since the boom of 1885-86, and probably before that time, and he is still with us. The legitimate building operator serves a useful purpose in his community. His ability to borrow a reasonable amount of money, start a house and get it completed, and put the new frills in it that make it so attractive to a woman, is much greater than that of the ordinary layman, who has little time, talent or cash for a building operation. For this reason, the home-seeker buys a new house from the professional on easy terms, and pays him a reasonable profit. Everybody is satisfied.

On the other hand, when the market is glutted with over-mortgaged, poorly-built houses, everybody suffers; and there are many indications that we may be headed for another condition of this kind.

In at least one city in the country, where building is very active, there is evidence that many of the builders are borrowing the entire cost of their operations from the mortgage companies. They are very plausible in presenting their blue prints, and pressing their arguments about the existing demand for houses, that will make them easy sellers. Already there is talk of 35c per cubic foot being taken as the new standard of value. This is the same figure that was so popular ten years ago when the boom was on. Most of the professional's operations are not 35-cent houses.

The solution of this problem is in the hands of the appraisers. Strictly speaking, a loan to the builder should be something less than the cost of the house so he will be required to put some of his own money in it. He usually owns his vacant lots already, or in many cases, he "borrows the lot" by paying for it with a second mortgage, so with a full building loan, he really has little or none of his own money invested.

Loans for the full cost of the house are hazardous enough, but when we appraisers get so careless that we permit the mortgagee to lend not only the cost of the house, but frequently the lot also, either we are plainly incompetent, or else are mortgage gamblers, hoping that the rising market will help the builder sell or trade his alleged equity, and cover up our mistakes.

On the other hand, I sometimes think many mortgagees place loans without any appraisal. I once knew a kindly old gentleman that let the applicant furnish appraisals made by his friends. The heads of many of the smaller mortgage companies pride themselves on "doing my own appraising." Many let the applicant furnish the detailed description of his property, and this is checked by a "committee" who use "horse sense" in making the appraisal.

I hope I have overdrawn this picture. The real estate and mortgage interests of the country have been claiming "We've learned our lesson"—but I wonder if we have?

HILL FERGUSON, M. A. I.

Washington, D. C., May 15, 1935.

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Summary of Appraisal Rates

City	Flat Fee	Rate per Thousand	Range of Values	Remarks	Expert Test. Per Day
Akron.....	25.00		0 to 5,000	Commercial and Indus. Property	50.00
		1.00	5 to 100,000		
	15.00		0 to 10,000	Residential Property	
		1.00	10,000 and up		
Albany, N. Y. Board.....	25.00		0 to 5,000		50.00
		1.00	5,000 to 100,000		
		0.50	100,000 and up		
Individual—	Usually charge at ½ Board rate.				
Atlanta, Ga.....		2.00	0 to 15,000		
		1.00	15,000 and up		
	20.00			Minimum	50.00 min.
Baltimore, Md..	25.00			Minimum	
		4.00	0 to 10,000		
		2.00	10 to 25,000		
		1.50	25 to 100,000		
		1.00	100 to 400,000		
		0.50	400,000 and up		
Birmingham	10.00			Min. for one man	
	25.00			Min. for three men	
		1.00	0 to 100,000		25.00 first day
		0.50	100 and up		5.00 each additional day
Bridgeport, Conn.....	50.00		0 to 5,000		
		3.00	5,000 and up		
Bronx, New York....	50.00 minimum below 50,000			Improved Property	
	Between 50.00 and 500.00		50,000 to 1,000,000		
	Special agreement		Over 1,000,000		
	50.00 min. charge				
		1% annual rent	0 to 25,000	Rental values	
		¼% on balance			
	25.00	Vacant lots 25 x 100 feet (except waterfront)			
		5.00 each additional lot up to and incl. 10			
	Special agreement	more than 10 lots			
	25.00		1 acre or less	Acreage	
	5.00		Each additional acre		
	Special agreement	all other property			
Brooklyn.....	1/10 of 1%		General Rule		
	Minimum Fees				
	25.00		1 to 3 lots	Vacant Lots 20 x 100	
	10.00		Each additional lot		
	25.00		1 or 2 family house		
	30.00		Business or Apartments		
	Special agreement	all other property			
	Appraisal Board—	Fees on application			
Buffalo.....	40.00		Minimum	Industrial	
		1.00	Over 40,000		
	25.00		Minimum	Residential	
Canton, Ohio...	15.00		0 to 10,000		
	25.00		10 to 25,000		
		1.00	balance		
Charleston, W. Va.....	15.00		Minimum		
		1.00	To 100,000		
		0.50	Balance		

This table was compiled from the *National Real Estate Journal*. Issue of April 20, 1935. Volume 36, No. 5, Pages 44 to 55 inclusive.

City	Flat Fee	Rate per Thousand	Range of Values	Remarks	Expert Test. Per Day
Chattanooga, Tenn.	Two Appraisers				
	20.00		0 to 2,500		
	25.00		2,500 to 5,000		
	30.00		5,000 to 10,000		
	35.00		10 to 20,000		
	40.00		20 to 30,000		
		1.00	Balance		
	Three Appraisers—Add one-half				
Chicago Board	25.00		0 to 10,000		
		1.00	Additional		
	Leaseholds, fees or undivided interests, charge based on entire property value. Appraisals antedating 10 years or more, 1½ times the regular fee.				
Cincinnati Board	25.00			Base fee	
		1.50	To 300,000		
		0.50	Balance		
Cleveland Board		1.00			50.00
	100.00		Minimum		
		1.50	Appraisals made as March 1, 1913		
Columbus Board	50.00		Minimum		
		1.00	To 100,000		
		0.50	Balance		
Dayton Board	20.00		To 20,000		
		1.00	To 100,000		
		0.50	On balance		
Denver Board	25.00		To 5,000		
	50.00		5 to 25,000		
	50.00+ 1/10 of 1%		25 to 100,000		
	150.00+ 1/20 of 1%		Balance		
	Outside city by special agreement.				
Des Moines, Iowa, Board	25.00		Minimum		
		5.00	0 to 5,000		
		4.00	5 to 10,000		
		3.00	10 to 25,000		
		2.00	25 to 100,000		
		1.00	Balance		
Detroit Board	50.00		0 to 5,000		100.00
	100.00		5 to 15,000		
		2.00	15 to 300,000		
		1.50	300 to 500,000		
		1.00	Balance		
Elizabeth, N. J.	50.00		Minimum		
	50.00		To 25,000		
	100.00		25 to 50,000		
		1.50	Balance		
Erie, Pa., Board	25.00		To 5,000		
	35.00		5 to 10,000		
		1.00	Balance		
Evansville, Ind., Board	15.00		To 15,000		
		1.00	15 to 100,000	Vacant Property	
		0.50	Balance		
	25.00		To 25,000		
		1.00	25 to 100,000	Improved Property	
		0.50	Balance		
Fall River, Mass. Board	15.00		Minimum		
		2.00	To 100,000		
		1.50	100 to 200,000		
		0.50	Balance		
	5.00		Minimum	Probate Appraisals	
Flint, Mich., Board	25.00		To and incl. 5,000		
	40.00		5 to 15,000		
	50.00		15 to 25,000		
	1/10 of 1% on balance				

City	Flat Fee	Rate per Thousand	Range of Values	Remarks	Expert Test. Per Day
Flint, Mich. (Cont) Individual.....	10.00 15.00 25.00 1/15 of 1%		To and incl. 3,000 3 to 10,000 10 to 25,000 Balance		
Fort Wayne, Ind., Board...	15.00	 1.00 0.50	Minimum To 100,000 Over		
Fort Worth Board.....	30.00	 1.00 0.50	Minimum To 100,000 Balance		25.00
Gary, Ind., Board.....	15.00 25.00	 1.00 0.50	To 10,000 10 to 25,000 25 to 100,000 Balance		
Grand Rapids, Mich., Board..	25.00 35.00 50.00	 1.00	To 5,000 5 to 10,000 10 to 25,000 Balance		
	When appraising a number of properties in an estate, charge for total value of property plus $2.00 additional for each property.				
Hamilton, Ont., Board..... Individual.....	20.00 1/5 of 1% 10.00 1/10 of 1%		Minimum Minimum		50.00 min. Inspection, Attending conferences, Preparation, etc., subject to agreement.
Hartford, Conn. Board.....	20.00 20.00+	 0.75	To 20,000 Balance		
Houston, Texas, Board.....	25.00 0.1%		Minimum To 100,000		25.00
	Additional charges to cover expenses. Special charges for special service. Rural property charge 0.25 cents per mile, Minimum 5.00.				
Huntington, W. Va.....	Fees quoted upon request.				
Indianapolis Board.....	15.00 15.00+	 1.00	Minimum 0 to 200,000 200,000 and up by special agreement	Per property	
	For estates, two parcels receive 15.00 charge but once.				
Jacksonville, Fla., Board...	25.00	 2.50 1.00 0.75 0.50	Minimum To 20,000 20 to 30,000 30 to 50,000 On balance	For 3 Appraisers	50.00 per man
	For retrospective appraisals outside of city add 50%. Add transportation charges on outside appraisals.				
Jersey City Board.....	25.00 50.00 100.00	 1.00	To 25,000 25 to 100,000 100 to 250,000 Balance		
Kansas City, Mo., Board...	25.00	 1.50 1.00	Minimum To 100,000 Balance		10.00 per day, minimum
Knoxville Board.....	30.00	 2.00 1.00 0.50	Minimum To and incl. 30,000 30 to 100,000 Balance		25.00 per man
Little Rock, Ark.....	25.00 25.00+	 1.00	To 2,000 Balance		

City	Flat Fee	Rate per Thousand	Range of Values	Remarks	Expert Test. Per Day
Long Beach, Calif., Board..	25.00		To 10,000	Business and Residential	100.00 minimum
		1.00	10,000 to 100,000		
		0.50	Over 100,000		
		0.75			
		0.75	Over 100,000	Farm, Subdivision, Acreage, Harbor, Industrial	
	250.00		To 250,000	Leaseholds and Ground Leases	
		0.50	Balance		
	25% additional for retrospective appraisals, expenses extra.				
Los Angeles Board.....	50.00		To 10,000		100.00 minimum
		1.00	10 to 100,000		
		0.50	Balance	Business and Residential	
		0.75	Balance	Industrial, Subd., Acreage, Harbor Property	
		0.75	Balance	Farm property	
	2.50		To 250,000	Leaseholds and Ground Leases	
		0.50	Balance		
	25% additional for retrospective appraisals. Expenses extra.				
Louisville Individual....		2.50	To 300,000		25.00 minimum plus regular rates for appraisals
		1.50	300 to 1,000,000		
		1.00	Balance		
	10.00		Minimum		
		5.00	To 300,000		
Board.....		3.00	300 to 1,000,000		
		2.00	Balance		
	100.00		Minimum		
Lynn, Mass., Board.....	50.00		To 10,000		
		2.00	Balance		
Manchester, N. H.....	25.00		0 to 10,000	As a committee or individually	
	0.5%		To 25,000		
	0.25%		To 100,000		
	Special agreement		Over 100,000		
Memphis.....	25.00		Minimum		25.00 in court. If no court appearance, charge 25.00 for preparation
		2.00	To 15,000		
		1.00	15 to 250,000		
		0.50	Balance		
	Outside city charge double rate and expenses.				
Miami Board...	25.00		To 25,000		
		1.00	25 to 200,000		
Milwaukee.....	25.00		To 15,000		50.00 min. plus 25.00 per day preparation
		1.00	Balance		
	50.00		To 15,000 } 1911 & 1913		
		2.00	Balance } appraisals		
Minneapolis, Minn., Board.	15.00		To 3,000		
	20.00		3 to 4,000		
	25.00		4 to 5,000		
	30.00		5 to 7,500		
	35.00		7.5 to 10,000		
	40.00		10 to 12,500		
	45.00		12,500 to 15,000		
	50.00		15 to 20,000		
	Over 20,000				
	50.00+	1.00	20 to 100,000		
	Over 100,000				
	50.00+	0.50	100 to 1,000,000		
		+0.25	on Balance		

City	Flat Fee	Rate per Thousand	Range of Values	Remarks	Expert Test. Per Day
Nashville Board.....		2.00	To 30,000		
		1.50	30 to 150,000		
		1.00	150 to 250,000		
		0.50	Balance		
	25.00		Minimum		
Newark Board..	100.00		To 25,000		By special agreement
		1.50	Balance		
New Haven, Conn., Board.	20.00		Minimum	1, 2, 3 & 4 family resident property in all zones, & similar prop. in E. Haven, W. Haven, and Hamden.	
	20.00+	1.00	Over 5,000		
	50.00		Minimum	Apartment, Business, semi-business, industrial prop., vacant land in bus. & ind. zones & similar prop. in E. Haven, W. Haven & Hamden.	
	50.00+	1.00	Over 35,000		
New Orleans, La. Individual....	10.00		Minimum		2% to 10,000 1% on excess
	25.00			Country Property	
	25.00		Minimum	Rates do not apply to homesteads, banks & insurance companies.	
Board.....		2.00	To 100,000		
		1.50	100 to 500,000		
		1.00	Balance		
Norfolk, Va., Board.....	15.00		Minimum	For 1 parcel located So. of Olney Rd., E. of the Hague, & W. of Church St., incl., both sides of Church St., So. of Olney.	
	10.00		0 to 1,000		
		1.00	1 to 25,000		
		0.50	Balance		
		1.00		Property outside the above limits	
Oakland Board..	0.25% of value		0 to 20,000		
	0.1667% of value		20 to 50,000	(0.1667% = 1/6 of 1%)	
	0.10%		Balance		
	5.00		Minimum		
Oklahoma City, Board.....	25.00		Minimum		
		1.00			
Omaha, Neb., Board.....	25.00		0 to 7,500		50.00
	25.00+	2.00	7,500 to 50,000		
		2.00	50 to 100,000		
	Over 100,000	2.00	To 100,000		
	25.00+	+ 1.00	on Balance		
Paterson, N. J., Board.....	15.00		0 to 10,000		
		1.50	10 to 100,000		
		1.00	Balance		
	20.00 additional outside of city.				
Peoria, Ill., Board.....	30.00		Minimum		
		3.00	0 to 15,000		
		2.00	15 to 30,000		
		1.00	Balance		
	10 cents per mile per person additional on farm appraisals.				
Philadelphia Board and Individual....	25.00		Minimum		50.00
	15.00		0 to 5,000		
	15.00+	1.25	5 to 100,000		
		+ 1.00	On Balance		

City	Flat Fee	Rate per Thousand	Range of Values	Remarks	Expert Test. Per Day
Phoenix, Ariz., Board.....	15.00		Minimum 0 to 5,000		
	15.00+	1.00	5 to 100,000	Residential property	
		+ 0.50	Balance		
	25.00		Minimum 0 to 10,000		
	25.00+	1.00	10 to 100,000	Business property	
		+ 0.50	Balance		
	25.00		Minimum 0 to 10,000		
	25.00+	1.00	10 to 100,000	Agricultural lands	
		+ 0.75	Balance		
Pittsburgh Board.....	50.00		Minimum 0 to 10,000		
		+ 1.00	Balance		
Portland, Maine, Board.....	10.00		Minimum	Appraisals requiring inspection.	25.00 min.
Portland, Oregon		1.00	0 to 100,000	City property; outside City by agreement.	
		+ 0.50	Balance		
	15.00		Minimum		
		2.00	0 to 10,000		25.00 min. plus board fee for services rendered.
		+ 1.00	Balance	Farm property plus traveling expenses	
Providence, R. I.	50.00+		0 to 5,000		
		1.00	Balance		
Reading, Pa., Board.....	20.00		0 to 2,500		50.00
	30.00		2,501 to 5,000		
	40.00		5 to 10,000		
		2.00	10 to 250,000		
		0.50	Balance		
Richmond, Va., Board.....	25.00		0 to 5,000		10.00 per man plus expenses
	35.00		5 to 10,000		
	50.00		10 to 25,000		
		2.00	25 to 100,000		
		1.00	Balance		
Rochester, N. Y., Board..	30.00		0 to 10,000		25.00
	40.00		10 to 15,000		
	50.00		15,000 to 25,000		
	60.00		25 to 40,000		
		1.00	Balance		
	Out of town, add 50% plus expenses.				
Individual....	½ of board rates. agreement.	Appraisals for banks and building and loan associations by			
St. Louis.....	25.00		Minimum		50.00 before a Commission 100.00 in Court
		5.00	0 to 10,000		
		+ 2.50	10 to 50,000		
		+ 2.00	50 to 100,000		
		+ 1.50	100 to 200,000		
		+ 1.00	200 to 500,000		
		+ 0.50	500 to 1,000,000		
	Special agreement		Over 1,000,000		
St. Paul Board.....	25.00		Minimum		
		2.00	0 to 25,000		
	50.00		Minimum		
		1.75	25 to 50,000		
	87.50		Minimum		
		1.50	50 to 75,000		
	112.50		Minimum		
		1.25	75 to 100,000		
	125.00		Minimum		
		1.00	100 to 500,000		
		1.00	500,000 to 1,000,000		
		+ 0.50	Balance		

City	Flat Fee	Rate per Thousand	Range of Values	Remarks	Expert Test. Pd Per Day
Salt Lake City, Utah					
Individual....	10.00		Minimum		25.00 or part thereof
	25.00		Minimum 0 to 15,000		
Board.....		1.00	15 to 100,000		
		0.50	100,000 to 500,000		
		0.25	Balance		
San Antonio, Texas, Board..	15.00		0 to 2,500		
	20.00		0 to 5,000		
	25.00		0 to 10,000		
	30.00		0 to 20,000		
	40.00		0 to 30,000		
	50.00		0 to 50,000		
		1.00	0 to 100,000		
		+ 0.50	Balance		
San Diego, Calif. Board.....	15.00		0 to 2,500	For 2 appraisers, for additional man, add 5.00	25.00 min. for each piece
	20.00		2,500 to 5,000		
		+ 1.00	5 to 100,000		
		+ 0.50	Balance		
	Additional fees for country property.				
Individual.....	10.00		Minimum for each piece		
San Francisco Board.....	50.00		0 to 5,000		50.00
	75.00		5 to 10,000		
	100.00		10 to 20,000		
		+ 2.50	20 to 100,000		
		+ 2.00	100 to 500,000		
		+ 1.00	500,000 balance		
	100.00		Minimum		
Seattle, Wash...	10.00		0 to 5,000	Residential property	25.00 in court, plus 25.00 per day for prep. If no appearance in court is required, charge 25.00 per day for preparation.
		+ 1.00	Balance		
	25.00		Minimum		
		1.00	0 to 50,000	Business property	
		+ 0.50	50 to 100,000		
		+ 0.25	100,000 and over		
	25.00		Minimum	Acreage and Farm property	
	If outside city, add 10 cents per mile each way: if more than 20 miles, by agreement.				
	By agreement			Leasehold	
	Increase fees 50%			Retrospective appraisal	
	Add expenses and special services to charges.				
South Bend, Ind. Board.....	15.00	+ 1.00			25.00
Spokane, Wash., Board.....	10.00		Minimum		
	15.00		0 to 7,500		
		+ 1.00	0 to 100,000	Business property	
		+ 0.50	Balance		
	10 cents per mile each way if outside city; if over 20 miles, special agreement.				
	Retrospective appraisal increase fees 50%.				
	Add expenses and special services to charges.				
	Leaseholds by agreement.				
Springfield, Mass., Board..	25.00	1.00	Minimum		By agreement
	75.00		Minimum outside city		
Syracuse, N. Y., Board.....	25.00		Minimum		
		+ 1.00	Over 25,000		
Tacoma, Wash., Board.....	25.00		Minimum		50.00
	25.00	+ 1.00	25,000 to 50,000		25.00 half day
		+ 0.50	50 to 100,000		
		+ 0.25	Balance		

City	Flat Fee	Rate per Thousand	Range of Values	Remarks	Expert Test. Per Day
Tampa, Fla., Board.....	15.00		0 to 2,500		25.00
		+ 1.00	2,500 to 250,000		
		+ 0.50	Balance		
	25.00		Minimum on farms		
Tulsa Board.....	25.00		Minimum		
		1.00			
Utica.....	5.00		0 to 5,000		
	10.00		5 to 10,000		
	15.00		10 to 20,000		
		+ 1.00	Balance		
Washington, D. C.....	25.00		Minimum		
		1.00	0 to 50,000		
		+ 0.50	Balance		
Waterbury, Conn., Board..	25.00		Minimum		
	0.1%		Of total value		
Individual....	10.00		Minimum		
	0.1%		Of total value		
Westchester County, N. Y. Individual....	10.00		Minimum—Does not cover expert test.		25.00 min. subject to agreement.
Wichita, Kansas, Board.....	15.00		0 to 5,000		10.00 to 25.00 per day per man.
	20.00		5 to 10,000		
	25.00		10 to 25,000		
		+ 1.00	25 to 100,000		
		+ 0.50	Balance		
	Retrospective appraisals prior to 1924, add 50%				
		2.00	0 to 50,000	Farms	
		+ 1.50	Balance		
	Plus 15 cents per mile and expense of lodging and meals.				
Winnipeg, Manitoba....	10.00		Up to 5,000		50.00
	15.00		Up to 10,000		
	20.00		Up to 15,000		
	25.00		Up to 25,000		
		+ 0.50	25 to 100,000		
		+ 0.25	Over 100,000		
	Special rates for rental valuations.				
Winston-Salem, N. C., Board..	15.00		Up to 10,000	Fees apply to a single tract. Each additional tract 5.00.	
		+ 1.00	10 to 100,000		
		+ 0.50	Balance		
Worcester, Mass.	0.50%		Up to 50,000		
	0.1%		On balance		
Youngstown, Ohio, Board...	25.00		0 to 5,000		100.00 (Total)
		1.00	5 to 100,000		
		0.50	Balance		
	Also				
	15.00		Up to 2,500		
	20.00		2,500 to 5,000		
	25.00		5 to 10,000		
	30.00		10 to 25,000		
		+ 10.00	25 to 100,000		
		+ 0.50	100 to 1,000,000		
		+ 0.25	Balance		
	30.00		Minimum		

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Current Articles

Ad Valorem System Versus Income Value. E. June 14, 1935, p. 9. $0.30. An address by Paul E. Stark discussing earning power as a determinant of fair value.

Assessment of Property in Times of Depression. William F. Connelly. N. T. A. B. May, 1935, p. 226. $0.45. An objection to the use of the income approach, alone, to determine assessment valuations.

Elevators Increase Income of Former "Walk-Ups." B. & B. M. June, 1935, p. 43. $0.45. Deals with installation of elevators in rehabilitating apartment buildings.

Just What Do We Mean By Value? "Val U. Ator." R. E. June 15, 1935, p. 7. $0.30. The problem of indefinite definitions.

Mortgage Still A Sound Investment. S. B. J. June, 1935, p. 72. $0.55. Advantages of cooperative action of mortgage lending institutions.

New Opportunities for City Planning. Theodore T. McCrosky. C. E. April, 1935, p. 267. $0.70. Federal Funds are now available to expand the useful fact findings services of city planning units.

Office Building Tide Turned. H. A. Winters. R. E. June 15, 1935, p. 5. $0.30. Highlights on the office building situation.

Place of Housing in National Rehabilitation. Harold L. Ickes. J. L. E. May, 1935, p. 109. $1.45. A discussion of this national problem from a realistic point of view.

Population Density and Distribution in Urban Areas. John Ihlder. P. J. Supplement May, 1935. $0.70. Consideration of efficient population density.

Population Trends and Real Estate. L. Segoe. R. E. R. June 15, 1935, p. 19. $0.70. Economic and sociological factors determine real estate values through population trends.

Possible Modifications of Urban Land Policies in America. Harold S. Buttenheim. J. L. E. May, 1935, p. 154. $1.45. A frank discussion of certain economic and social forces that affect value of land.

Problems of Real Property Ownership. William E. Malm. S. M. May, 1935, p. 8. $0.45. A commonsense analysis of the present status of real estate. Stimulating and helpful.

Prudential's Demonstration in Low-Rental Housing. Norbert Brown. R. E. R. June 15, 1935, p. 12. $0.70. The plan of a profit-making low-rent housing project.

Real Property Inventory. Howard W. Green. C. E. April, 1935, p. 254. $0.70. A description of this new source of valuable basic information.

Residential Construction Activity in the United States. F. H. L. R. June, 1935, p. 332. $0.30. A statistical study on new residential construction.

Study of Elevator Traffic. D. W. Orth. B. & B. M. June, 1935, p. 30. $0.45. An analysis of elevator traffic in the Kanawha Valley Building, Charleston, West Virginia.

U. S. Housing Manual. F. June, 1935, p. 76. $1.20. A consideration of whether the government's "housing policy" is sound, mistaken, or merely nonexistent.

What Policy for Institutions in Disposing of Properties? N. R. E. J. June, 1935, p. 43. $0.70. Symposium on market conditions as they affect selling policies.

The full names of the magazines indicated by initials on these pages are given below:

B. & B. M.	Buildings & Building Management	Monthly
C. E.	Civil Engineering	Monthly
E.	The Economist	Weekly
F.	Fortune	Monthly
F. H. L. R.	Federal Home Loan Review	Monthly
J. L. E.	Journal of Land and Public Utility Economics	Monthly
N. T. A. B.	National Tax Association Bulletin	Monthly
N. R. E. J.	National Real Estate Journal	Monthly
P. J.	The Planner's Journal	Monthly
R. E.	Real Estate	Weekly
R. E. R.	Real Estate Record	Weekly
S. B. J.	Savings Bank Journal	Monthly
S. M.	Skyscraper Management	Monthly

Copies of the magazines in which these articles appear may be secured from the Library of the National Association of Real Estate Boards, 22 W. Monroe St., Chicago, Ill. The price listed includes the price of the magazine and a small service charge for mailing and postage. Subscriptions may also be placed with the National Association.

Digest of the Minutes

The Governing Council of the American Institute of Real Estate Appraisers convened at the Book-Cadillac Hotel in Detroit, Mich. on May 29th at 9:30 A. M. President Joseph B. Hall presided. The following members were present:

Joseph B. Hall, Cincinnati, Ohio, President.
Arthur C. Houghton, Washington, D. C.
Ralph D. Baker, Camden, N. J.
Arthur S. Kirk, Des Moines, Iowa.
Harry E. Gilbert, Baltimore, Md.
E. L. Ostendorf, Cleveland, Ohio.
Philip W. Kniskern, Philadelphia, Pa.
Cuthbert E. Reeves, Washington, D. C.
Maurice F. Reidy, Worcester, Mass.

Ralph V. Fields of Galesburg, Ill. and A. P. Allingham of Buffalo, N. Y., were present by invitation.

Minutes of the Meeting Held in Houston on January 24, 1935

Upon a motion by Ralph D. Bakers, duly seconded, the reading of the minutes of the meeting held at the Rice Hotel in Houston, Texas, on January 24th was waived.

Membership Report

It was moved, seconded, and carried by unanimous vote to give sixty-day notice to seven delinquent members.

It was moved, seconded, and carried by unanimous vote to expel two members for non-payment of dues.

On motion of E. I. Ostendorf, seconded by Ralph D. Baker, and carried, delinquent affiliates were given a 60 day notice, to be automatically suspended for non-payment of dues if payment is not received within this period.

On motion of E. L. Ostendorf seconded by E. Gilbert, the resignations of the following affiliate members were accepted:

Hugh Abernethy, Birmingham, Ala.
F. L. Giblin, Mobile, Ala.
Bernard F. Cooney, Bridgeport, Conn.
Clyde D. Foster, Evanston, Ill.
A. F. Hamman, Chicago, Ill.
Guy S. Seaver, Englewood, N. J.
Howard L. Auerbach, White Plains, N. Y.
A. W. Hubbard, Philadelphia, Pa.
W. Oakley Roach, Charleston, W. Va.

Budget Comparison and Suggested Budget Revision

On motion of Philip W. Kniskern, seconded by Cuthbert E. Reeves, the following budget and Financial Report of the Treasurer, Mark Levy, was accepted:

Item	Budget for 1935	Actual to May 20	Estimated Additional This Year	
A. Members, Journal Subscriptions, and Examination Fees.				
Members	375	350	75	
Limited Members	40	10	20	
Affiliates	250	186	25	
Member Journal Subscriptions	665	535	95	
Non-Member Journal Subscriptions	325	239	100	
B. Income				
Dues from Members (@ $15)	$ 5,625.00	.....	$1,275.00	
Dues from Limited Members (@ $10)	400.00	$ 5,602.86	200.00	
Dues from Affiliates (@ $5)	1,250.00	.....	250.00	
Journals-Member Subscriptions	3,325.00	2,175.00	600.00	
Journals—Non-Member Subscriptions	1,750.00	1,123.25	500.00	
Admissions Account	1,000.00	270.00	475.00	
Miscellaneous	.....	17.26	.....	
	$13,350.00	$ 9,188.37	$3,300.00	$12,488.37
C. Expenditures.				
Printing Journal	$ 4,000.00	$ 1,466.78	$1,500.00	
Postage	500.00	101.54	200.00	
Printing and Stationery	750.00	203.98	300.00	
Salary Account Fund	5,757.50	3,112.77	1,262.33	
Rent Account Fund	822.50	444.69	180.31	
Travel	500.00	42.29	457.71	
Admissions Account	.....	616.58	225.00	
Miscellaneous	1,020.00	132.21	400.00	
Dues Refund	.....	125.85	.....	
	$13,350.00	$ 6,246.69	$4,525.35	$10,772.04
NET INCOME—1935				1,716.33

On a motion by E. L. Ostendorf, duly seconded and carried, the Travel Fund of $500.00 was made available for travel of paid employees and Members of the Institute at the discretion of the President.

On motion of E. L. Ostendorf, duly seconded and carried, it was decided to extend the funds to be allowed for promotional expense of the Summer School from $700.00 to $1,000.00.

REPORT OF THE ADMISSIONS COMMITTEE

On a motion of E. L. Ostendorf, seconded by Ralph D. Baker, and unanimously carried, the following candidates were elected to the Member grade:

Thomas G. Mapel, Sacramento, Calif.
George P. Williams, Washington, D. C.
Graham Aldis, Chicago, Ill.
Dominick Dunn, Chicago, Ill.
Earl George Gubbins, Chicago, Ill.
Donald T. Morrison, Chicago, Ill.
Edmund Paterson, Detroit, Mich.
Richard Northrup, Duluth, Minn.
Curtis Kimball, Lincoln, Nebr.
Charles F. Kraemer, Newark, N. J.
Frederick A. Tetor, Ridgewood, N. J.
Joseph P. Deasey, Albuquerque, N. Mex.
Edward Crawford, New York, N. Y.
Frederick Bond, Philadelphia, Pa.
J. Howard McLaughlin, Philadelphia, Pa.
C. G. Chappell, Scranton, Pa.
W. A. Prince, Johnson City, Tenn.
Lawrence Miller, Dallas, Texas.
J. W. Pat Murphy, Dallas, Texas.
Charles P. Burnett, Seattle, Wash.
Cecil Van Voris, Seattle, Wash.
Lyle B. Horner, Clarksburg, W. Va.
H. E. Pilcher, Huntington, W. Va.
Frederick M. Babcock, Washington, D. C.
David Vogel, New York, N. Y.

On motion of E. L. Ostendorf, seconded by Harry E. Gilbert, fifteen additional candidates were elected to the Member Grade subject to stated conditions.

On motion of E. L. Ostendorf, seconded by Philip W. Kniskern, the following candidates were elected to the Limited Member Grade:

Wm. C. McLennan, Chicago, Ill.
Fred Wetzel, Williamsport, Pa.
Alfred Beilharz, Dallas, Texas.

On motion of E. L. Ostendorf, seconded by Philip W. Kniskern, two additional candidates were elected to the Limited Member grade subject to stated conditions.

On motion of E. L. Ostendorf, seconded by Philip W. Kniskern, Robert S. Hay of Stamford, Conn., was unanimously elected to the Residential Limited Grade.

The recommendation of the Admissions Committee to defer action on 44 applications for reasons as stated was duly approved.

On motion of Philip W. Kniskern, seconded by E. L. Ostendorf, the action of the Admissions Committee in rejecting 4 applications and withdrawing one application was approved.

The recommendation of the Admissions Committee to allow only six months for the completion of application files without due cause was approved; the recommendation of the Admissions Committee to allow sixty days for the reply of Chapters to communications concerning applicants before taking direct action was approved.

REPORT OF THE PUBLIC RELATIONS COMMITTEE

Ralph D. Baker, Chairman of the Public Relations Committee, read a lengthy written report which was discussed, approved, and filed.

REPORT OF THE BY-LAWS COMMITTEE

Harry E. Gilbert, Chairman of the By-Laws Committee, gave an oral report from his Committee and offered several suggestions for possible revision in the By-Laws, which were discussed but not acted upon.

REPORT OF THE DISCIPLINARY COMMITTEE

A written report of the Disciplinary Committee from W. H. Ballard, Chairman, was read, approved, and filed.

REPORT OF THE EDUCATION AND RESEARCH COMMITTEE

A lengthy written report from K. Lee Hyder, Chairman of the Committee on Education and Research, was read, approved, and filed.

REPORT OF THE ETHICS COMMITTEE

A written report from Frank H. Taylor, Chairman of the Ethics Committee, was read, approved, and filed.

REPORT OF THE COMMITTEE ON LOCAL CHAPTERS

On motion of Cuthbert E. Reeves, Chairman of the Committee on Local Chapters, seconded by E. L. Ostendorf, the formal applications for Chapters in Philadelphia, the State of Washington, and the State of Michigan were approved by unanimous vote.

REPORT OF THE MEMBERSHIP COMMITTEE

A lengthy written report of progress from J. Alvin Register, Chairman of the Membership Committee, was read, approved, and filed.

AFFILIATION WITH THE INTERNATIONAL FEDERATION OF SURVEYORS

On motion of Maurice F. Reidy, seconded by Arthur C. Houghton, it was decided to affiliate with the International Federation of Surveyors.

The meeting adjourned at 2:00 P. M.

New Members

Admitted to the Grade of Member

THOMAS GROVE MAPEL, SACRAMENTO, CALIFORNIA. Born in Stockton, California, March, 1892; Appraiser, Valuation Department, McClatchy Realty Co., Sacramento; Appraiser, Pacific States Savings & Loan Co., Sacramento; professional territory covers Central California; employee of the McClatchy Realty Company which firm holds membership in the Sacramento Real Estate Board; Instructor in Real Estate Appraising Course, Sacramento Real Estate Board, 1928, 1929, 1930; Instructor in Real Estate Appraising Course given to members of the Sacramento Chapter of the American Savings, Building and Loan Institute in 1932, 1933; 7 years active experience in the appraising of real estate; valuation experience includes individual homes, apartments, farm lands, industrial property, lodge buildings, retail stores, acreage, etc.; completed course in Real Estate Appraising at the University of Southern California; engaged in general real estate business in Sacramento and environs during the period 1926-1934; Structural Ceramic Engineer 1916-1922; Building Material Distributor 1923-1926; President, Realty Salesman of Sacramento, 1928; Salesman Director, California Real Estate Association in 1929; Member, Educational Council, California Real Estate Association, 1930.

GRAHAM ALDIS, CHICAGO, ILLINOIS. Born in Chicago, Illinois; Active Member, Chicago Real Estate Board; Partner in the firm of Aldis & Company since 1922; professional territory covers business property in the Chicago area with particular reference to the loop and downtown properties; formerly Chairman, Taxation Committee and now Chairman, National Legislative Committee, Chicago Real Estate Board; Vice-President, Building Managers Association of Chicago; formerly Vice-President, National Association of Building Owners & Managers; more than 5 years experience in the appraising of real estate; Author and Lecturer; A. B. Degree from Harvard University, cum laude, 1917; A. M. Degree from Harvard University, 1918; Director and Trustee of various real estate corporations and trusts holding property in Chicago and vicinity and other cities.

DOMINICK DUNN, CHICAGO, ILLINOIS. Born in Grand Traverse, Michigan, January, 1883; in business for self operating as Dominick Dunn & Co.; Member and Director, Chicago Real Estate Board; Chairman, Torrens Committee, Chicago Real Estate Board; professional territory covers Chicago and the suburbs in the North Shore; 30 years experience in the appraising of real property including residences, vacant, and business properties; licensed real estate broker in the State of Illinois since 1924; qualified in Court as an Expert on vacant, business, and residential properties in 1929; has appraised residences and commercial properties for the Holland Building & Loan Association; has had experience as a carpenter and contractor; 20 years experience in the general real estate business.

EARL GEORGE GUBBINS, CHICAGO, ILLINOIS. Born in Chicago, Illinois, in January, 1896; in business under name of Earl George Gubbins; President, Sheridan Real Estate Improvement Corporation; Executive Committee of the Premier Realty Investment Trust; Honorary Member Chicago Real Estate Board; professional territory covers north side of Chicago and North Shore; Lecturer and Author; formerly President of Cook County Real Estate Board; studied in Y. M. C. A. College of Commerce, Chicago (2 years); 10 years experience in appraising real estate, including the valuation of vacant, commercial, residential, and industrial properties; licensed Real Estate Salesman, 1919-1935; qualified in Court as an expert on the value of school properties, 1925-1935; has appraised numerous properties for life insurance companies through the Chicago Real Estate Board; has made appraisals for Chicago Title and Trust Company and building and loan associations; erected over five million dollars worth of residential, commercial properties in Chicago and North Shore over a period of 15 years; 18 years experience as a Real Estate Broker selling residential properties.

DONALD T. MORRISON, CHICAGO, ILLINOIS. Born in Perry, Iowa, in April, 1887; Active Member, Chicago Real Estate Board; professional territory covers Cook County; Lecturer and Author; Graduate of Hamilton College of Law with LL.B. Degree; six months with Chicago Title & Trust Co. in 1921; Manager, W. K. Young & Brother for two years; instructor of witnesses in special assessment spreads for City of Chicago in 1923; 15 years experience in the appraising of real estate, including the valuation of farm land, industrial properties, commercial properties, golf clubs, apartment properties, office buildings, etc.; licensed Real Estate Broker in Illinois, 1920-1935; qualified in Court as an Expert on the values of all types of real estate; has appraised for Jefferson Park Building & Loan Association; has directed the erection of bungalows, residences, flat buildings for clients and for his own account.

HERMAN O. WALTHER, CHICAGO, ILLINOIS. Born in DeFuniak Springs, Florida, March, 1895; Chicago District Manager, H. O. L. C.; Vice-President, First Federal Savings & Loan Association of Chicago; Vice-President, Chicago Real Estate Board; Member, Union League Club; professional territory covers Metropolitan Chicago and Madison, Wisconsin; Author, Lecturer and Teacher;

B.A. Degree, University of Wisconsin; M.B.A. Degree, Northwestern University; Thesis "Real Estate Mortgage Bonds;" majored in Finance in undergraduate work, and Land Economics during graduate work at the University; 10 years experience in the appraising of real estate; residential sales experience 1923-1925 in Madison, Wisconsin, 1929-1931 in Chicago; appraisal experience includes the valuation of leaseholds, office buildings, hospital buildings, apartments, homes, etc.

LEO DAILEY, WAUKEGAN, ILLINOIS. Born in Buffalo, New York; Active Member, Waukegan-North Chicago Real Estate Board; in business under own name doing a general real estate and insurance brokerage business; professional territory covers Northern Illinois and Southern Wisconsin; has made appraisals totaling $3,529,053 on 236 parcels of land during the past year for the Home Owners' Loan Corporation, Attorney General's Office, State Auditor's Office, and individuals; 10 years experience in the appraising of real estate including the valuation of residences, vacant property, stores, lumber yards, etc.

JOHN C. KILEY, BOSTON, MASSACHUSETTS. Born in Boston, Massachusetts, in 1884; Real Estate Broker and Appraiser; Active Member, Boston Real Estate Exchange; professional territory covers metropolitan Boston; lecturer; thirty years experience in the appraising of real property, including the valuation of all types of real estate found in metropolitan areas; qualified in Court as an expert on general real estate values for the past twenty-five years; has appraised for the Massachusetts Hospital Life Ins. Co. of Boston, Provident Inst. for Savings, Boston, the Boston & Maine Railroad Co.; construction experience includes the erection of apartment houses and business properties; has sold residences continuously for thirty-five years; has appraised property for the First National Bank of Boston, Old Colony Trust Co., Boston, and for the Attorney-General's office of the Commonwealth of Massachusetts and the Law Department of the City of Boston; Real Estate Appraiser for the City of Boston from 1910 to 1914.

JUDSON BRADWAY, DETROIT, MICHIGAN. Born in Birmingham, Michigan, in July, 1882; President and Director of following companies: Judson Bradway Co., Bradway Investment Co., Bloomfield Maple Road Corp., Trowbridge Farms Co., Oakland Lakes Realty Co., Hupp Farm Corp., West Maple Road Corp., Cass Lake Venice Co., Waterford Beach Corp., Lone Pine Bloomfield Corp., South View Land Co., Art Center Corp., and Eclipse Counterbore Co.; Treasurer and Director of R. G. C. Co., Glenmore Land Co., and D. H. K. Land Co.; Active Member, Detroit Real Estate Board; professional territory covers Wayne and Oakland Counties, parts of Washtenaw and Macomb, Michigan; Lecturer; LL.B. Degree from Detroit College of Law; admitted to Bar of both local and Federal Courts; active in real estate appraising since 1902; licensed Real Estate Broker; qualified in Court as an expert on the values of various kinds of real estate; has appraised for the American Central Life of Indianapolis, Union Guardian Co., Detroit Savings Bank, Dime Savings Bank, and various other financial institutions; has built several hundred houses during the last 30 years.

MATTHEW CAREY, DETROIT, MICHIGAN. Born in Albany, New York, in September, 1892; President, Michigan Tax Adjustment Bureau, Inc.; personally engaged in Real Estate Brokerage; personally acting as consultant in servicing and refunding defaulted Municipal bond issues of Municipalities in the Detroit Metropolitan area; Active Member, Detroit Real Estate Board; professional territory covers State of Michigan; Author, 11 years experience in appraising real propety, including the valuation of office buildings, vacant, department stores, and industrial property; licensed Real Estate Broker; qualified in Court as an expert on the value of business and industrial real estate; former Chairman of the Industrial Property Division of the National Association of Real Estate Boards; has served the National Association and the State Association of Real Estate Boards in various capacities since 1924; 1915-1917, Chief Statistician, Union Pacific Railroad, New York City; 1919-1922, Assistant to Vice President in charge of manufacture, U. S. Rubber Company at New York office; 1923-1925, Vice-President, G. A. Kelly Company, Flint, Michigan; 1926-1929, Partner in firm of Healy & Carey, Flint, Michigan; associated with Union Carbon & Carbide Corporation, New York City in 1930, in analyzing real estate holdings in Grand Central Zone in connection with contemplated skyscraper development.

GUY S. GREENE, DETROIT, MICHIGAN. Born in Ypsilanti, Michigan, in May, 1885; President, Hannan Real Estate Exchange; Chairman, Brokers Division, N. A. R. E. B.; Director, First Federal Savings and Loan Association; Director, Mortgage & Contract Company; Director and Officer of various land companies; Active Member, Detroit Real Estate Board; professional territory covers metropolitan Detroit and environs; B.S. Degree from University of Michigan; 24 years experience in the appraisal of real estate, including the valuation of leaseholds, commercial property, garages, gas stations, acreage, and various other kinds of real estate; licensed real estate broker; qualified in Court as an expert on the values of business properties; has appraised for the Union Central Life Insurance Co., the Equitable Life Assurance Society of United States, and other financial institutions; 24 years experience in residential sales.

HENRY N. JOHNSON, DETROIT, MICHIGAN. Born in Chatfield, Minnesota, in June, 1879; Vice-President, Drennan & Seldon, Inc.; Active Member, Detroit Real Estate Board; professional territory covers Detroit and environs and border

cities of Canada; actively engaged in real estate business since 1915; time devoted exclusively to sale of residential properties from 1915 to 1922, to the sale and leasing of downtown properties from 1922 to 1928, and exclusively to the appraisal of real estate since 1928; approximately eight years experience in the appraising of real property, including the valuation of all types of properties in the metropolitan area of Detroit; qualified in Court as an expert on the value of practically all types of real estate for the last 15 years; has appraised property for the leading banks and title & trust companies of Detroit.

EDMUND T. PATERSON, DETROIT, MICHIGAN. Born in Township of Durham, Province of Quebec, Canada, in September, 1875; Partner, Paterson Bros., Realtors; President, Paterson Van Dyke Realty Co.; President, Provident Mortgage Co.; Treasurer, North Central Realty Co.; Active Member and past President of Detroit Real Estate Board; professional territory covers Detroit, Wayne County, and Oakland County, Michigan; licensed Real Estate Broker; qualified in Court as an expert on real estate values in cases involving condemnation, bond issues, estates, mortgages, arbitration, etc.; has appraised properties for the Mutual Benefit Life and the State Mutual Life Insurance Companies; has appraised properties for the Grand Rapids Trust Co. and other financial institutions; construction experience includes building of warehouses, factories, apartments, and single family homes over a period of 25 years; extensive residential sales experience in Detroit since 1901; more than 20 years experience appraising real estate, including the valuation of all types of properties.

LEONARD P. REAUME, DETROIT, MICHIGAN. Born in Riverside, Ontario, Canada, in July, 1891; Vice-President, Detroit Trust Co.; President, Holden & Reaume, Inc.; Broker Member of Detroit Real Estate Board; professional territory covers Detroit, Wayne Co., Oakland Co., and Macomb Co.; Author and Lecturer; Graduate of Assumption College, Ontario, Study of Architecture and Real Estate Law; 24 years experience in the appraisal of real estate, including the valuation of all types of property typically found in metropolitan areas; licensed Real Estate Broker; qualified in Court as an expert on the values of business, residential, and other types of real estate; has appraised property for the Midland Life Ins. Co., Ohio State Life Ins. Co., Detroit Trust Co., and other financial institutions; has had experience as supervisor of construction.

GEORGE C. SEXAUER, DETROIT, MICHIGAN. Born in Detroit, Michigan, in October, 1895; Vice-President and Secretary of Holden & Reaume, Inc.; Director of Society for Savings, a building and loan association; Vice-Chairman of Appraisal Committee, Detroit Real Estate Board; Broker Member of Detroit Real Estate Board; professional territory covers Detroit and Wayne Co., Michigan; 10 years experience in appraising real estate, including the valuation of all types of property typically found in metropolitan areas; licensed Real Estate Broker; qualified in Court as an expert on the values of downtown properties; has appraised for the Dime Savings Bank, First National Bank, Detroit Trust Co., Union Guardian Trust Co., and other financial institutions.

CARL S. WELLS, DETROIT, MICHIGAN. Born in Osceola Mills, Pennsylvania, in August, 1884; President, Homer Warren & Co., Vice-President, Detroit Association of Building Owners & Managers; Director, Business Property Association; Secretary, Eaton Tower; President, Charles E. Bresler Estate Land Company; Assistant Treasurer, Bagley Land Co.; Broker Member of Detroit Real Estate Board; professional territory covers Detroit and environs; 25 years experience in the appraisal of real property, including the valuation of stores, office buildings, vacant, loft buildings, garages, bank buildings, and other properties typically found in metropolitan areas; licensed Real Estate Broker; qualified in Court as an expert on the value of income property; has appraised for the New England Mutual Life Ins. Co., Connecticut General Life Ins. Co., and other financial institutions; has had over 25 years experience in management, supervision of construction, repair and maintenance of office building structures.

RICHARD W. NORTHUP, DULUTH, MINNESOTA. Born in Evanston, Illinois, in September, 1881; Vice-President and Secretary, Gerry, Northup & Company; District Appraiser, Home Owners' Loan Corporation; Member of Board of Directors of Family Welfare Association; Member of Civil Service Commission of Duluth; Member of Duluth Board of Realtors; professional territory covers Duluth and vicinity and H. O. L. C. duties extend over six counties; Graduate of Williams College; 20 years experience in general real estate business; fifteen years' experience in real estate appraising, including the appraising of properties of all types and classes; has appraised properties for the Trust Department of the First & American National Bank of Duluth; 20 years experience in the repairing and remodeling of buildings of all types and the construction of new houses.

CURTIS C. KIMBALL, LINCOLN, NEBRASKA. Born in Lincoln, Nebraska, in 1895; admitted to State and Federal Bar; Active Member, Lincoln Real Estate Board; professional territory covers southeastern Nebraska; Lecturer and Teacher; graduated from University of Nebraska College of Law in 1919; has managed business properties since 1921; President, Lincoln Real Estate Board in 1932; Chairman, Appraisal Committee, 1931-32-33; 10 years experience in appraising real estate, including the valuation of commercial property, office buildings, residences; qualified in Court as an expert on the values of residential and business properties; has appraised properties for the

Lincoln Liberty Life Ins. Co., for the Midwest Life & Security Mutual, for the Lincoln Trust Co., and for the First Trust Co.; 8 years experience in home building and subdividing as Sales Manager for Rathbone Co., termining in 1929; since 1929 has operated his own company, specializing in sales, loans, and property management.

JOSEPH P. DEASY, ALBUQUERQUE, NEW MEXICO. Born in Marquette, Michigan, in February, 1898; now employed as Assistant State Appraiser for H. O. L. C. (February, 1935); Associate Member Albuquerque Real Estate Board; professional territory covers entire State of New Mexico; four years experience as Railway Freight Accountant; entered real estate business in New Mexico in 1922; 13 years experience in the appraising of real property, including the valuation of single family residences, commercial property, hotels, apartment buildings and duplexes; qualified in Court as an expert on residential property values; has appraised property for the First Savings Bank & Tust Company of Albuquerque; seven years experience in general contracting and building.

CHARLES FREDERICK KRAEMER, NEWARK, N. J. Born in Port Jervis, New York; Past President and Honorary President, Newark Real Estate Board; President, C. F. Kraemer, Inc.; Treasurer, Federal Building and Loan Association; Author and Lecturer; Graduate M. D. from the College of Physicians and Surgeons, Columbia College; former Vice-President, German Mutual Fire Insurance Co.; former President, Metropolitan Savings Association; fomer President, Investors Mortgage and Loan Association; former member, Leschziner & Co., Real Estate Investments, Builders and Operators; former Board of Works Commissioner, City of Newark; former Developer and Manager of Port of Newark, and Real Estate Expert to all branches of the City of Newark's Government; more than 12 years experience in the appraising of real property, including the valuation of all types of real estate.

FREDERICK A. TETOR, RIDGEWOOD, NEW JERSEY. Born in Rome, Pennsylvania; Broker Member, Ridgewood Real Estate Board; Vice-President, S. S. Walstrum, Gordon & Forman; Vice-President, Glen Rock Building & Loan Assn.; Treasurer, Bridge Development Bond & Mortgage Co.; Secretary, Crystal Lake Forest Park Co.; Teasurer, Mount Laurel Holding Corp.; Vice-President, Bergen County Chamber of Commerce; Chairman, Bergen County Planning Commission; President, North Bergen Co.; professional territory covers Northern New Jersey and Rockland and Orange Counties, New York State; formerly connected with Frank M. Stevens, Ridgewood, New Jersey, in the real estate and insurance business; Member of the firm of S. S. Walstrum, Gordon & Forman since 1918; appraisal experience includes the valuation of vacant land, residential property, and business property.

EDWARD J. CRAWFORD, NEW YORK CITY. Born in Willimantic, Connecticut, in 1875; Vice-President and Director of Charles F. Noyes Company, Inc.; Trustee, Isham Gardens; Trustee, 79 Madison Avenue Corporation; Trustee, Yorkshire Gardens, Inc.; Trustee, 522 West End Avenue Co.; Trustee, 326-8 West 86th Street Corporation; Trustee, 1133 Park Avenue Co.; Trustee, 875 West End Avenue Corporation; Trustee, 908-18 West End Avenue Co.; Member of Bondholders Committee Pennsylvania Building; Associate Member, Real Estate Board of New York; professional territory covers New York City. Lecturer and Author; 34 years experience in appraising real estate in metopolitan New York; licensed real estate broker; qualified in Court as an expert on all kinds of property valuations; has appraised property for the New York Life, Metropolitan Life, Manhattan Life and many others; has appraised properties for most of the larger banks and trust companies of New York City; has appraised approximately $65,000,000 of property for New York State Insurance Department and more than $50,000,000 worth of property for the Manufacturers Trust Company; has numerous other real estate appraisal connections.

DAVID VOGEL, NEW YORK CITY, N. Y. Born in New York City in 1871; professional territory covers the State of New York and State of New Jersey; Individual Member, National Association of Real Estate Boards; has had charge of a class at the Y. M. C. A. for many years; 25 years of experience in the appraising of real estate; extensive experience also in brokerage and the management of real estate.

DONALD F. HIETT, TOLEDO, OHIO. Born in Toledo, Ohio, in October, 1888; Vice-President, The Allied Realty Co.; Director, Arden Realty Co.; Vice-President, Buckeye Realty Co.; Vice-President, Combined Realty Co.; Secretary, Copland Woods Realty Co.; Secretary, Erie Paint & Paper Co.; Vice-President, Irving B. Hiett Co.; Treasurer, Vistula Realty Co.; Treasurer, The Investors' Realty Co.; Secretary, Reserve Building Co.; Vice-President, Rugby Realty Co.; Vice-President, Swan Creek Lumber Co.; Secretary & Treasurer, Swan Creek Coal Co.; Vice-President, United Building & Repair Co.; Class "B" Member, Toledo Real Estate Board; professional territory covers Lucas and Wood Counties, Ohio; Graduate, Mechanical Engineering at Cornell University, Class of 1912; 15 years experience in appraising real property, including all types of real estate typically found in metropolitan areas; licensed Real Estate Salesman in the State of Ohio; has appraised for Ohio Savings Bank & Trust Co., United Savings Association, and other financial institutions; has served on appraisal committee of Toledo Real Estate Board; has had extensive construction experience with the Irving B. Hiett Co. as well as experience in residential sales.

FREDERICK A. BOND, PHILADELPHIA, PA. Born in Auburn, New York, in February, 1891;

President of F. A. Bond Co., Inc.; Staff Member, Realty Appraisals, Inc.; Assistant Secretary, Whitby Building & Loan Association; Advisory Member of Appraisal Committee of Philadelphia Real Estate Board; Member, Appraisal Coommittee of West Philadelphia Realty Board; professional territory covers Philadelphia and Delaware Counties, also Montgomery and Chester Counties; Graduate Colgate University, majoring in Mathematics and Engineering; 10 years experience in the appraising of real property, including the appraisal of practically all types of properties; qualified in Court as an expert on the values of industrial, vacant, and residential properties; has appraised for insurance companies, trust companies, banks, building and loan associations, and other financial institutions; 12 years experience in residential sales.

ROY A. HEYMANN, PHILADELPHIA, PA. Born in Philadelphia, December, 1884; Partner in firm of Heymann & Bro.; Active Member, Philadelphia Real Estate Board; professional territory covers the Central section of Philadelphia and other large cities throughout the country; Graduate, Wharton School of Accounts & Finance, 1907; 28 years experience in the appraising of real property; licensed real estate broker; qualified in Court as an expert on commercial property values; has appraised property for the Fidelity Mutual Life Ins. Co., and for most of the Savings and Trust Companies in Philadelphia; has had a great deal of construction experience, including the building of 213-215 Broad Street, 1700 Walnut Street, Cunard Building, and many others; has also had a long experience in the sale of residential and other types of real estate.

J. HOWARD McLAUGHLIN, PHILADELPHIA, PA. Born in Philadelphia, Pa., October, 1888; Real Estate Appraiser, The Philadelphia Saving Fund Society; Active Member, Philadelphia Real Estate Board; 12 years experience in the appraising of real estate, including the valuation of garages, commercial property, factories, office buildings, club properties, banks, etc.; academic training in the Temple University, American Institute of Banking, and the Wharton School of Finance.

C. G. CHAPPELL, SCRANTON, PA. Born in Scranton, Pa., in July, 1897; Real Estate Appraiser; Chairman, City Assessors; Member and Past President, Scranton Real Estate Board; professional territory covers New York, Vermont and Pennsylvania; has appraised properties for the Delaware & Hudson Railway, U. S. Government, Atlantic Refining Company, Equitable Life Assurance Society, Prudential Insurance Company, City of Scranton, Irving Trust Company, Scranton Trust Company, Lackawanna Building Savings & Loan Association, and many others; actively engaged in real estate appraising since 1920.

W. H. PRINCE, JOHNSON CITY, TENNESSEE. Born in Chattanooga, Tennessee, in October, 1894; President and Treasurer, Fountain City Land & Development Company, Knoxville; District Appraiser, Home Owners' Loan Corporation; Member, Knoxville Real Estate Board; professional territory covers Knoxville and upper East Tennessee; Lecturer and Author; 12 years experience in the valuation of real estate, including the appraisal of commercial properties, industrial properties, homes, vacant land, and many other classes of real estate; qualified in Court as expert on real estate valuations, 1925 to 1933, inclusive; has appraised properties for Savings Banks, Trust Companies, Building and Loan Associations, and other financing institutions; developed one 175-acre subdivision and one 52-acre subdivision; constructed about 50 homes during the period 1923 to 1930; residential sales experience from 1920 to 1933, inclusive.

BALLARD BURGHER, DALLAS, TEXAS. Born in Honey Grove, Texas, August, 1887; Proprietor, Ballard Burgher & Co.; President, Dallas Bond & Mortgage Corporation; Vice President Guardian-Federal Savings & Loan Association; Vice President Lisbon Realty Company; President, Reliance Investment Company; President, Dallas Royalty Company; Active Firm Member of Dallas Real Estate Board; professional territory covers City of Dallas, Highland Park, University Park, and acreage tracts in Dallas County; B.A. Degree from University of Texas and B.S. Degree from Massachusetts Institute Technology; seventeen years' experience in the appraising of real estate including the valuation of residences, vacant lots, commercial property; twelve years' experience as a member of the Appraisal Committee of the Dallas Real Estate Board, appraising business, industrial, and residential property; served as Chairman of the Review Committee which installed the present method of making real estate board appraisals in Dallas; qualified in Court as an expert on business property values; has appraised for the Mississippi Valley Life Insurance Company; the Bank Savings Life of Topeka, and Building and Loan associations and Savings Banks; as owner and agent, has planned and promoted the erection of commercial buildings and residences of all classes in Dallas.

LAWRENCE MILLER, DALLAS, TEXAS. Born in New York, in January, 1887; in business for himself under name of Lawrence Miller, Realtor; Active Member and past President of Dallas Real Estate Board; professional territory covers Dallas County; Author and Lecturer; actively engaged in real estate business in Dallas during last 30 years; with firm of Hann & Kendall for 13 years as partner and vice-president; in business for himself since 1918; 15 years experience in appraising real property, including the valuation of residential property, business property, stores, office buildings, theaters, postoffice, etc:; qualified in Court as an expert on the values of business, industrial and residential properties; has appraised for Protective Life Ins. Co. of Birmingham, Ala-

bama, Prudential Bldg. & Loan, and Continental-Southland Companies; 30 years residential sales experience.

JOHN W. PAT MURPHY, DALLAS, TEXAS. Born in Pawtucket, Rhode Island, in August, 1888; president and owner of Pat Murphy and Company; Member and Former President of Dallas Real Estate Board; served several times as Chairman of Appraisal Committee of the Dallas Real Estate Board; professional territory covers every State west of the Mississippi River; Author, Lecturer, and Teacher; Graduate of the University of Arkansas, 1927; post-graduate work during 1928; for five years, Instructor in A. & M. College of Texas; formerly Chairman of Property Management Division, N. A. R. E. B.; 16 years experience in the appraising of real estate, including the valuation of all types and classes of property; qualified in Court as expert on the valuation of business and residential properties; has appraised for banks, trust companies, and building and loan associations, as well as private clients; several years experience in residential sales, including selling of two subdivisions of his own.

CHARLES P. BURNETT, SEATTLE, WASH. Born in Cincinnati, Ohio, in March, 1876; Real Estate Manager, John Davis & Company; President, Founders Federal Savings & Loan Association; Appraiser for Trust Department of First National Bank of Seattle; Appraiser for Federal Home Loan Bank, Portland, Oregon; Active Member, Seattle Real Estate Board; professional territory covers Seattle and Western Washington as well as Eastern Washington, Oregon, and Idaho for the Federal Home Loan Bank; Author and Lecturer; active in the appraisal of real estate since 1905; licensed real estate broker; qualified in Court as an expert on vacant and improved business and residential property valuations; has appraised for the Occidental Life Insurance Company of California and for numerous financing institutions in the Pacific Northwest; has promoted and been interested in the construction of several business and apartment buildings and residences; Sales Manager of one of Seattle's largest real estate organizations since 1916; appraisal experience includes the valuation of industrial and business properties, leaseholds, residential properties, and all types of properties secured by mortgage loans.

CECIL S. VAN VORIS, SEATTLE, WASH. Born in Asotin, Washington, in July, 1899; Salesman in the Real Estate Department of Henry Broderick, Inc.; Salesman Member of the Seattle Real Estate Board; professional territory covers the following Counties: King, Pierce, Grays Harbor, Pacific and Snohomish, and also Portland, Oregon; B.A. Degree from the University of Washington; took special courses in Land Economics, Insurance, Real Estate Law, and Real Estate Appraising; served as a Member of the Real Estate Board Appraisal Committee; has appraised more than 500 properties for H. O. L. C.; experienced in the appraisal of residences, farms, apartments, stores, service stations, garages, and auto camps; 8 years experience in appraising real estate; qualified in Court as an expert on real estate values in 1932; appraised residences for the Prudential Life Insurance Company; appraised residences for the Washington Mutual Title & Trust Company; has had experience in carpentering, plumbing, and painting; has supervised construction on three homes, including plans to finish; has remodeled six homes.

LYLE B. HORNOR, CLARKSBURG, WEST VIRGINIA. Born in Lumberport, West Virginia, in October, 1881; President, Hornor Real Estate Company; President, Lyle B. Hornor Company; professional territory covers northern West Virginia; appraiser for H. O. L. C., Equitable Life Assurance Society of America, Prudential Life Insurance Company, Standard Bond & Mortgage Company, Richmond, Virginia; Essex Investment Company of Richmond, Virginia, and several banks in Clarksburg; 15 years experience in the appraising of real property, including dwellings, apartments, and commercial properties.

H. E. PILCHER, HUNTINGTON, WEST VIRGINIA. Born in Hinton, West Virginia, June, 1882; Owner and Manager, H. E. Pilcher & Co., Real Estate, Insurance and Rentals; Member, Board of Directors and Past President, Huntington Real Estate Board; professional territory covers principally Huntington, W. Va., and entire County of Cabell; 13 years experience as Accountant and Auditor; 21 years experience in the general real estate business; 15 years experience as an appraiser of real estate, including the valuations of dwellings, brick-yards, farms, stores, apartments, garages, hotels, office buildings, and bank buildings; licensed real estate broker; qualified in Cabell County Courts as expert witness on the value of dwellings, business properties, farms, vacant lands; has appraised for life insurance companies, banks, trust companies, and other financial institutions; supervised the building construction of 40 private residences and several store properties.

Admitted Under Limited Specifications

(Article II, Section 3, Sub-Section C—General)

WILLIAM C. McLENNAN, CHICAGO, ILLINOIS. Born in Bellshill, Scotland; Owner, William C. McLennan Co., Builders, Realtors, Insurance; Active Member, Chicago Real Estate Board; Member, Board of Directors, and Chairman of the Finance Committee, Chicago Real Estate Board; Past President, Northwest Real Estate Board;

past Vice-President and Chairman of Loan Committee, Edison Park State Savings Bank; 15 years experience in the appraising of real property, including the valuation of all types of real estate; completed two-year course in Real Estate Law at the Y. M. C. A.; completed one-year Appraisal Course at the Y. M. C. A.; has been actively engaged in the real estate business, including the building, selling, and developing of real estate for more than 20 years; has made more than 500 appraisals for the H. O. L. C. through the Chicago Real Estate Board.

R. MASON KIRKLAND, ELIZABETH, N. J. Born in Elizabeth, N. J., in May, 1891; Member of the firm, R. J. Kirkland & Son; professional territory covers Elizabeth, New Jersey, and vicinity; Active Member, Elizabeth Real Estate Board; 15 years experience in the appraising of real estate, including the valuation of industrial, vacant, commercial, residential, and acreage properties; former President, Elizabeth Real Estate Board; Director in the Chamber of Commerce for a number of years; Vice-President and Director, Winfield Scott Hotel.

FRED B. WETZEL, WILLIAMSPORT, PA. Born in Williamsport, Pa., in October, 1896; President, Fred B. Wetzel, Inc.; Member, Appraisal Committee, Williamsport Real Estate Board; professional territory covers Lycoming County; entered real estate business in April, 1923; general real estate experience in brokerage, insurance, subdivision, construction of homes, and financing of mortgages; 6 years experience in the appraising of real property; licensed real estate broker; qualified in Court as an expert on various types of real estate in 1932; has appraised for the Savings Institution, Lycoming Trust Co., supervised the construction of more than 100 homes; 11 years experience in selling real estate.

ALFRED J. BEILHARZ, DALLAS, TEXAS. Born in Dallas, Texas, in April, 1893; individual broker operating a one-man office; Active Member, Dallas Real Estate Board; Member of Residential Appraisal Coommittee of Dallas Real Estate Board; professional territory covers Dallas City and County, but has had appraisal experience throughout northern and eastern part of Texas; 15 years experience appraising real estate; qualified in Court as an expert on residential and business property values; has appraised property for Kansas City Life Insurance Company and State Life Insurance Company of Indiana and Texas Life Insurance Company of Waco, Texas; has appraised properties for the Realty Trust Company of Dallas, and for the Continental-Southland Building and Loan Association; has built several houses, acting as his own architect and contractor and has built one four-family apartment building; has had extensive experience in the sale of real estate; served as Manager of the Mortgage Loan Department of the Realty Trust Company in Dallas, 1926-29.

(Article II, Section 3, Sub-Section D—Residential)

ROBERT S. HAY, STAMFORD, CONNECTICUT. Born in East Orange, New Jersey, in October, 1900; Active Member and President of Stamford Real Estate Board, Inc.; professional territory extends from East Portchester to Westport, Connecticut; graduate of Wharton School of Finance & Commerce, University of Pennsylvania; nine years experience as a real estate broker; Secretary of the Stamford Real Estate Board, 1929 to 1932; Member of State and National Committee on Real Estate Taxation in 1934; Member of Advisory Committee, Stamford Federal Housing Committee —1935; supervised real property inventory of Stamford, 1934; eight years experience in appraising real estate, including valuation of acreage, residences, gas stations, business properties, resort properties, apartment houses, water front property; qualified in Court as an expert on the value of residential and business properties; has appraised for the Stamford Trust Company, the Fidelity Title & Trust Company, the First Federal Savings & Loan Association of New York, the Home Owners' Loan Corporation, and other financial institutions.

HERSCHEL S. GREEN, FLINT, MICHIGAN. Born in Hutsonville, Illinois, in December, 1897; actively engaged at present in managing farm lands in Illinois; Active Member of Genesee County Real Estate Board, Flint, Michigan; for past two years has been Mortgage Loan Inspector for Equitable Life Assurance Society for the State of Michigan; A.B. Degree, University of Illinois, 1920; LL.B. Degree University of Illinois, 1926; Member of Michigan Bar; has been active in financial reorganization work during the past seven years with experience covering apartments, hotels, office buildings, theatres garages, homes, and farm lands and loans ranging from $1,000 to $2,500,000; seven years experience in the appraisal of real estate; licensed Real Estate Salesman in the State of Michigan; has appraised property for the Equitable Life Assurance Society, Chicago Title & Trust Co., and other financial institutions.

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